TEAC®

Achtung Änderung

SERVICE MANUAL

A-800

Stereo Cassette Deck with Dolby System

TEAC
POWER
MODEL A-800
TEAC C60
TWO MOTOR / THREE HEAD
EJECT

NOTE

If any of the adjustments or repairs seem too complicated or are difficult to accomplish, please contact the nearest TEAC Factory Service Department or write directly to a TEAC office, the addresses of which are printed on the back cover of this manual.

When ordering replacement parts, please refer to the PARTS LIST which is printed separately from this manual and included as an insert.

TEAC CORPORATION

51032400

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* Noise reduction circuit made under license from Dolby Laboratories. The word "Dolby" and the Double-D symbol are trademarks of Dolby Laboratories.

1. PARTS LOCATION

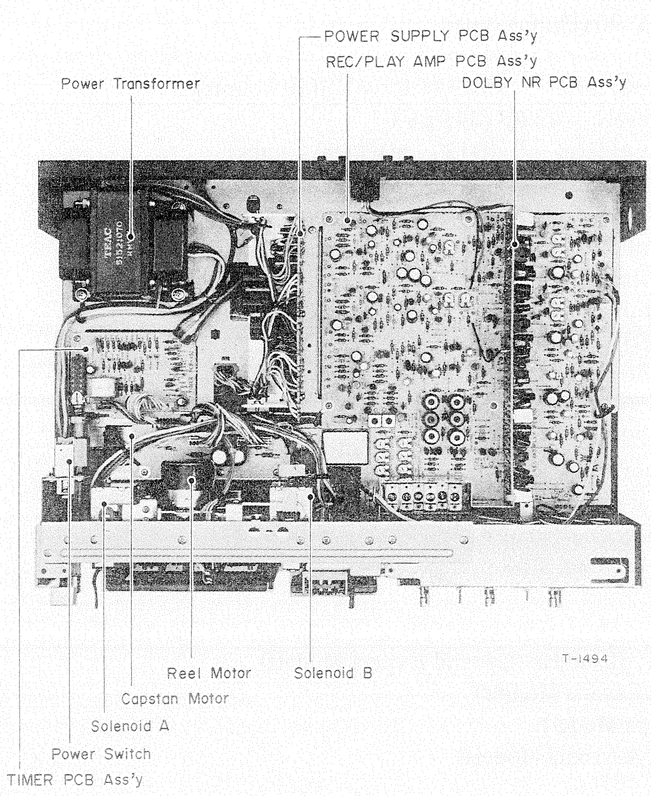

POWER SUPPLY PCB Ass'y
REC/PLAY AMP PCB Ass'y
Power Transformer
DOLBY NR PCB Ass'y
T-1494
Reel Motor
Solenoid B
Capstan Motor
Solenoid A
Power Switch
TIMER PCB Ass'y

Fig. 1-1 Top View

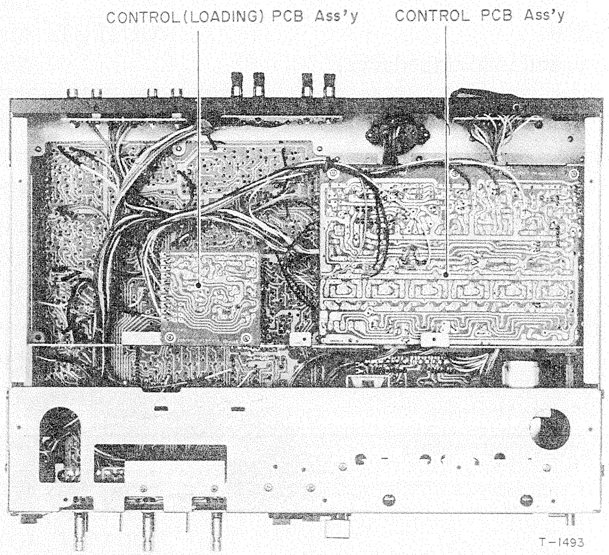

CONTROL (LOADING) PCB Ass'y
CONTROL PCB Ass'y
T-1493

Fig. 1-2 Bottom View

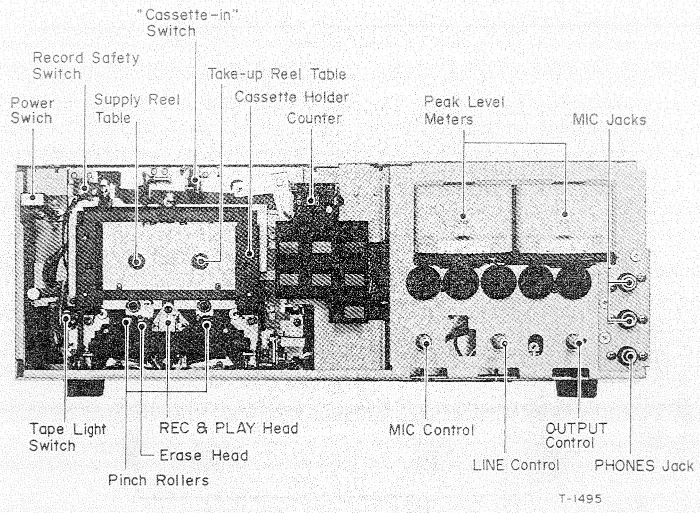

"Cassette-in" Switch
Record Safety Switch
Take-up Reel Table
Power Swich
Supply Reel Table
Cassette Holder
Counter
Peak Level Meters
MIC Jacks
Tape Light Switch
REC & PLAY Head
Erase Head
Pinch Rollers
MIC Control
OUTPUT Control
LINE Control
PHONES Jack
T-1495

Fig. 1-3 Front View

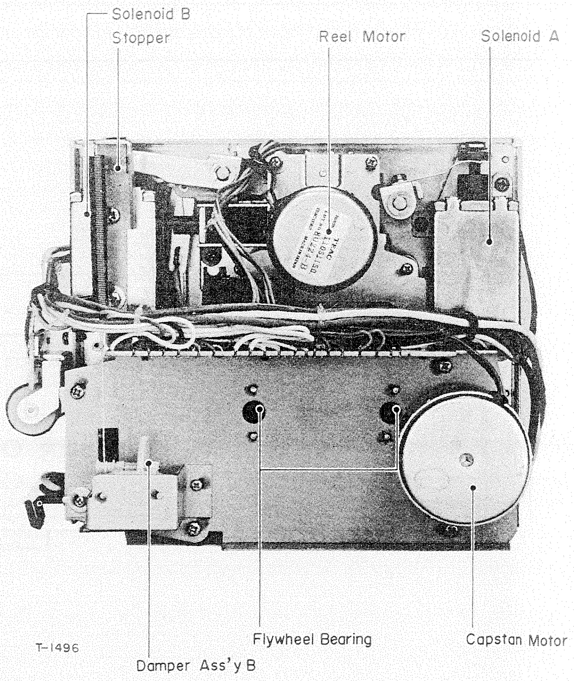

Solenoid B
Stopper
Reel Motor
Solenoid A
T-1496
Flywheel Bearing
Capstan Motor
Damper Ass'y B

Fig. 1-4 Rear View of Transport Chassis

2. SPECIFICATIONS AND SERVICE DATA

SPECIFICATIONS

Track System	4-track, 2-channel stereo
3 Heads	Erase, Record and Playback
Type of Tape	Cassette tape, C-60 and C-90 (Philips type)
Tape Speed	4.8 cm/s (1-7/8 ips)
Inputs (level and impedance)	MIC: Specified input level: –57 dB (1.09 mV)/(10 kohms) Min. input level: –67 dB (345 μV) LINE IN: Specified input level: –9 dB (274 mV)/(50 kohms) Min. input level: –19 dB (86 mV) dbx (RCV) –2.5 dB (581 mV)/(15 kohms)
Outputs (level and load impedance)	OUTPUT: Max. output level: +1 dB (0.869V)/(50 kohms) Specified output level: –5 dB (435 mV) Headphones: Specified output level: –18.8 dB (86.9 mV)/(8 ohms) dbx (SEND) –2.5 dB (581 mV)/(15 kohms)
Equalization	CrO_2: 3180 μs + 70 μs FeCr: 3180 μs + 70 μs NORMAL: 3180 μs + 120 μs
Head Configuration	1/2-track, 1-channel Erase Head 1/4-track, 2-channel Dual-gap Record and Playback Heads
2 Motors	1 FG Servo Controlled DC Capstan Motor 1 Mechanical Governed DC Reel Motor
Bias Frequency	100 kHz
Operating Position	Horizontal
Power Requirements	100/117/220/240 V AC, 50/60 Hz (General Export Models) 117 V AC, 60 Hz (USA/Canada Models) 220 V AC, 50 Hz (Europe Model) 240 V AC, 50 Hz (U.K./Australia Models)
Power Consumption	28 W
Weight	13 kg (29 lbs.) net

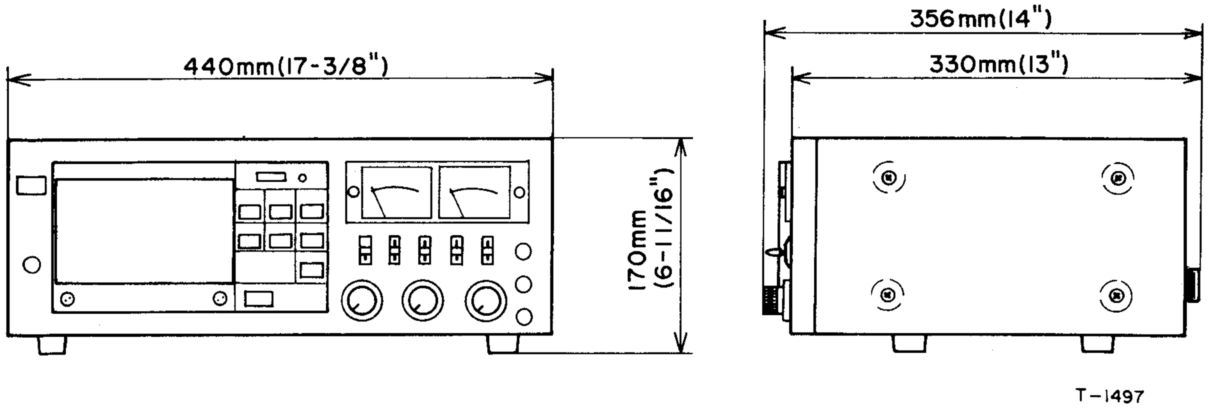


Fig. 2-1 Dimensions

SERVICE DATA

Mechanical

Tape Speed Deviation	3,000 Hz ±30 Hz
Tape Speed Drift	30 Hz
Wow and Flutter	Playback: 0.07% (WRMS) 0.15% (RMS) Record/Playback: 0.18% (RMS)
Pinch Roller Pressure	Take-up: 350 g ±20 g (11.6 oz. to 13.5 oz.) Supply: 300 g ±20 g (9.9 oz. to 11.3 oz.)
Reel Torque	Take-up: 40 to 65 g·cm (0.6 to 0.9 oz-inch) Supply: 5 to 8 g·cm (0.07 to 0.11 oz-inch) Fast Forwind/Rewind: 100 to 160 g·cm (1.4 to 2.2 oz-inch)
Fast Winding Time	90 seconds for MTT-501 (C-60)

Electrical

Frequency Response	Refer to frequency response limits charts on page 19 and 22.
Signal to Noise Ratio	Playback method: NORMAL tape: 48 dB (min.) Record/Playback method: CrO_2 & FeCr tapes: 48 dB (min.) NORMAL tape: 45 dB (min.) With Dolby Noise Reduction used for recording and playback, S/N ratio is improved by 5 dB at 1 kHz and 10 dB at frequencies over 5 kHz.
Erase Efficiency	65 dB min.
Channel Separation	35 dB min. (at 1 kHz)
Crosstalk Between Adjacent Tracks	40 dB min. (at 125 Hz)
Total Harmonic Distortion	2.0% or less w/3 types of tape

NOTE:
- Improvements may result in Specifications and Service Data changes.
- Value of "dB" in the Data refers to 0 dB = 0.775V, except where specified. If a Tape Set or AC Voltmeter calibrated to 0 dB = 1 V is to be used, appropriate compensation should be made.

3. TEST EQUIPMENT

NOTE: When ordering special tools, jigs and test tapes, allow for the longer delivery time that is required for them.

3-1 ORDINARY TOOLS AND EQUIPMENT

1. Spring scale: For pinch roller pressure check, 0 to 1 kg (2.2 lbs)
2. Wow/flutter meter: MEGURO DENPA SOKKI K.K., Model MK-668A, or D & R Co., Model FL-4B
3. Frequency counter: Digital type, capable of 10 Hz to 100 kHz indication
4. AF oscillator: 10 kHz to 100 kHz
5. AC voltmeter: 0.1 mV to 300 V
6. Attenuator: General purpose
7. Distortion analyzer: Basic frequency 400 Hz/1 kHz
8. Oscilloscope: General purpose
9. Band-pass filter: 1 kHz narrow band-pass type
10. Test load resistor: Non inductive type 8 ohm/1 W
11. Plastic alignment tool:
12. Head demagnetizer: TEAC E-3 or equivalent
13. Cleaner: TEAC TZ-261 tape recorder cleaner kit or pure alcohol
14. Oil: TEAC TZ-255 oil kit or equivalent
15. Bulk tape eraser: TEAC E-2 or equivalent

3-2 SPECIAL TOOLS AND JIGS

1. Cassette torque meter: For take-up and supply torque checks, 0 to 100 g·cm (0 to 1.4 oz·inch)
2. Cassette torque meter: For fast forward and rewind torque checks, 0 to 160 g·cm (0 to 2.2 oz·inch)
3. Mirror-equipped tape path test tape:
4. Check base plate jig: Part No. 50306100 *1
5. Guide height check jig: Part No. 50306130 *2
6. Crab-eye driver: For screwing or unscrewing crab-eye screws

*1 Check base plate jig (Part No. 17850500-00) for A-860 may be used in place of this.
*2 Pinch roller height check jig (Part No. 17850502-00) for A-860 may be used in place of this.

3-3 TEAC TEST TAPES

REMARKS: 0 dB = DIN reference level (333 Hz)

For tape speed and wow/flutter test

1. MTT-111: • For playback method • 3,000 Hz/−10 dB
2. MTT-501: • For record/playback method (blank tape)

For playback performance alignment

3. MTT-150: • For Dolby level calibration • Dolby B-type tone (400 Hz tone), 200 nWb/m
4. MTT-316: • For frequency response test for EQ, CrO_2 and FeCr • 3,180 μs + 70 μs • 315 Hz/−4 dB, 31.5 Hz to 14 kHz/−24 dB
5. MTT-216: • For frequency response test for EQ, NORMAL • 3,180 μs + 120 μs • 315 Hz/−4 dB, 31.5 Hz to 14 kHz/−24 dB

For record performance alignment (blank tape)

6. MTT-506 or similar: • For BIAS/EQ, CrO_2
7. MTT-504 or similar: • For BIAS/EQ, FeCr
8. MTT-501 or similar: • For BIAS/EQ, NORMAL

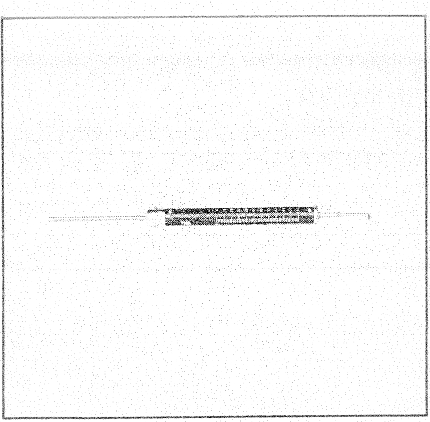


Fig. 3-1 Spring Scale

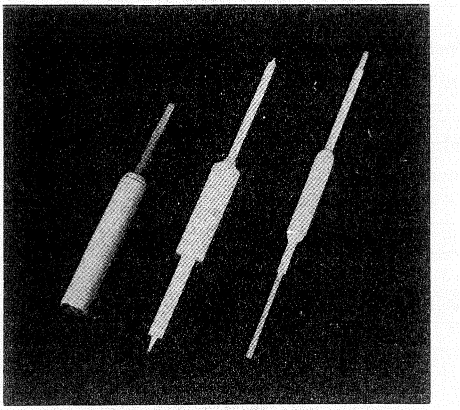


Fig. 3-2 Plastic Alignment Tools

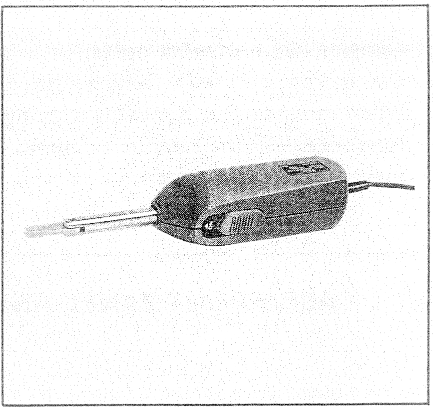


Fig. 3-3 E-3 Head Demagnetizer

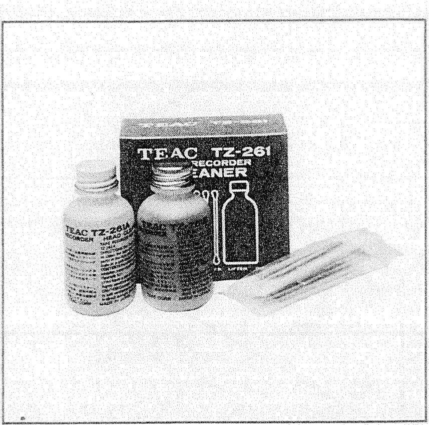

TEAC TZ-261
RECORDER
CLEANER

Fig. 3-4 TZ-261 Tape Recorder Cleaner Kit

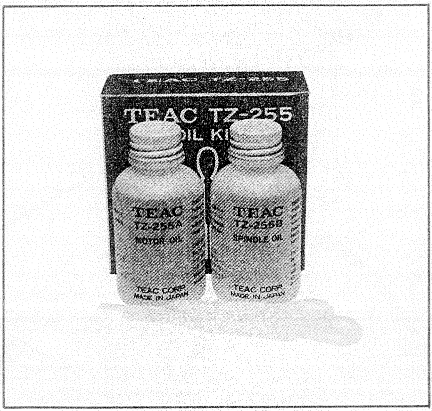

TEAC TZ-255
OIL KIT
TEAC
TZ-255A
MOTOR OIL
TEAC
TZ-255B
SPINDLE OIL
TEAC CORP.
MADE IN JAPAN

Fig. 3-5 TZ-255 Oil Kit

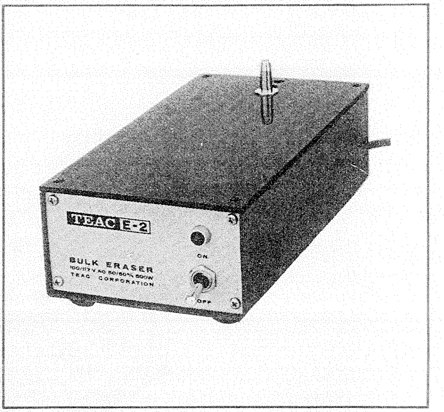

TEAC E-2
BULK ERASER
TEAC CORPORATION
ON
OFF

Fig. 3-6 E-2 Bulk Tape Eraser

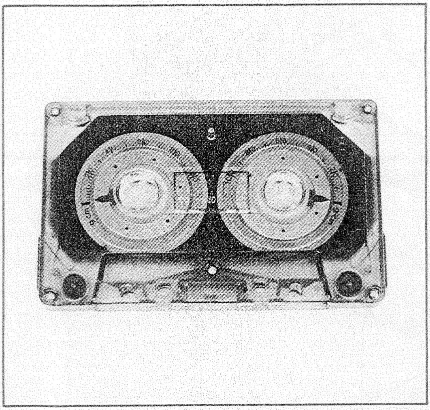


Fig. 3-7 Cassette Torque Meter

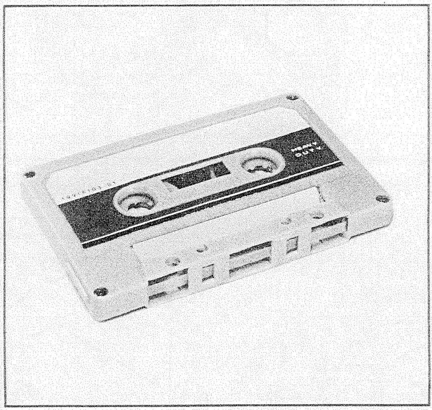


Fig. 3-8 Mirror-equipped Tape Path Test Tape

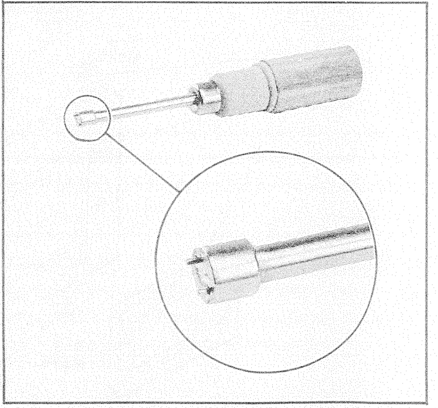


Fig. 3-9 Crab-eye Driver

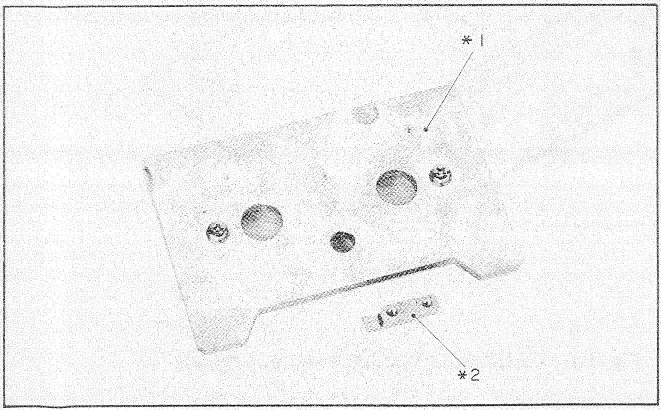


Fig. 3-10 Check Base Plate Jig (* 1) and Guide Height Check Jig (*2)

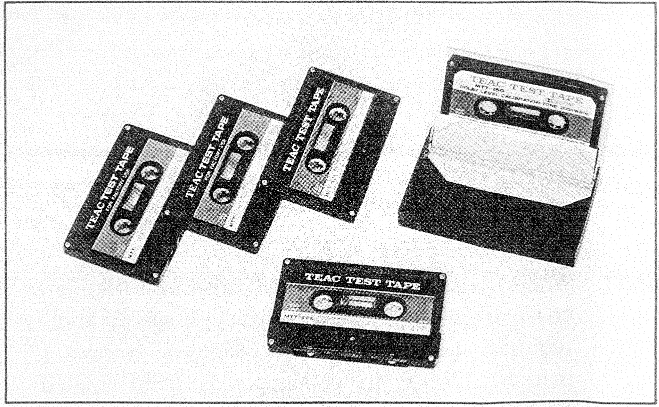

TEAC TEST TAPE
TEAC TEST TAPE
TEAC TEST TAPE
TEAC TEST TAPE
TEAC TEST TAPE

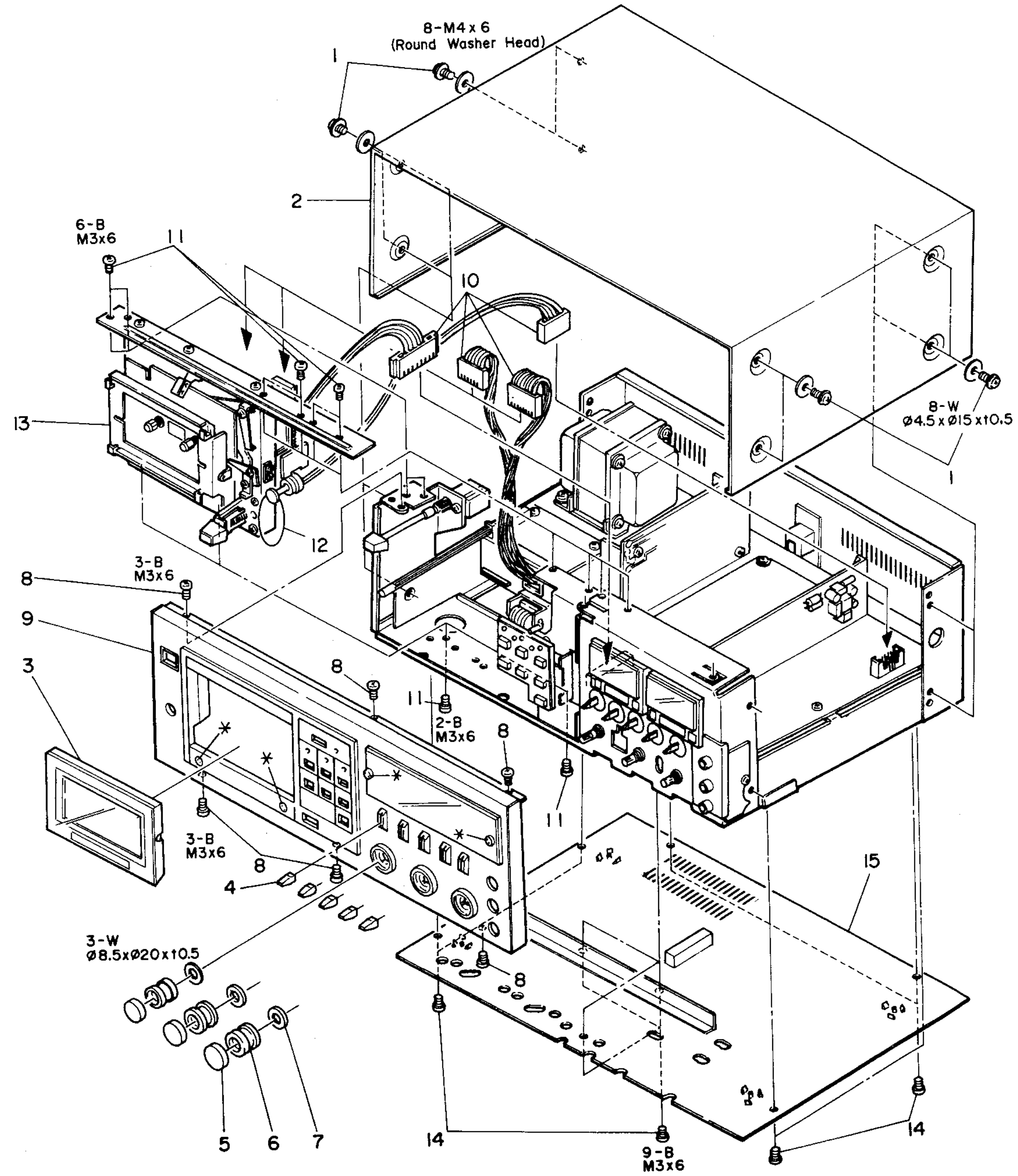
Fig. 3-11 TEAC Test Tapes

4. ILLUSTRATED DISASSEMBLY PROCEDURES

GENERAL NOTES

1. **Disassemble in number-order.**
2. Use the proper tools. Demagnetize the tools before use.
3. When mounting or removing a spring, check the position (direction) of the anchor or hook. The wrong position may change the tension.
4. When reassembling, don't forget to reinstall all hardware such as springs and washers etc.
5. To check the shape of assembling hardware (screws, etc.) see ASSEMBLING HARDWARE CODING LIST in the parts list.

4-1 CASE/FRONT PANEL AND TRANSPORT CHASSIS


8-M4 x 6
(Round Washer Head)
1
2
6-B
M3x6
11
10
13
12
3-B
M3x6
8
9
3
8
11
2-B
M3x6
8
11
3-B
M3x6
8
4
3-W
Ø8.5xØ20xt0.5
5
6
7
14
9-B
M3x6
14
15
8-W
Ø4.5xØ15xt0.5
1
T-1456

NOTE: When disassembling the head cover and the meter cover from the front panel ass'y, a special tool is required to remove the "crab-eyes" screws (* marked). Refer to paragraph 3. TEST EQUIPMENT.

Fig. 4-1 Case/Front Panel and Transport Chassis

4-2 CASSETTE HOLDER

Preparation

Remove in number-order.

1. Fig. 4-1, 1-thru-9.

NOTE: "1-thru-9" means all, including No. 1 and No. 9.

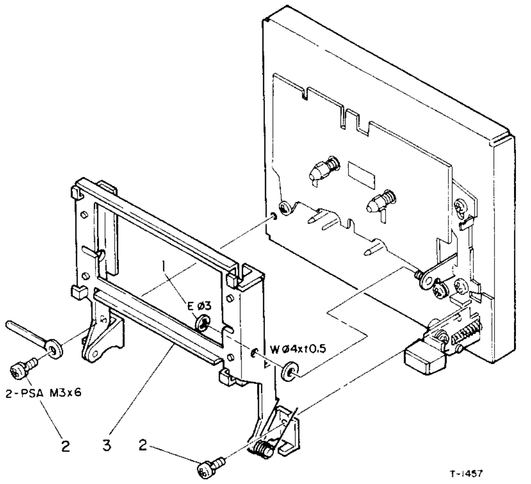

1
E ø3
Wø4xt0.5
2-PSA M3x6
2
3
2
T-1457

Fig. 4-2 Cassette Holder

4-3 HEADS AND PINCH ROLLERS

Preparation

Remove in number-order.

1. Fig. 4-1, 1-thru-9.

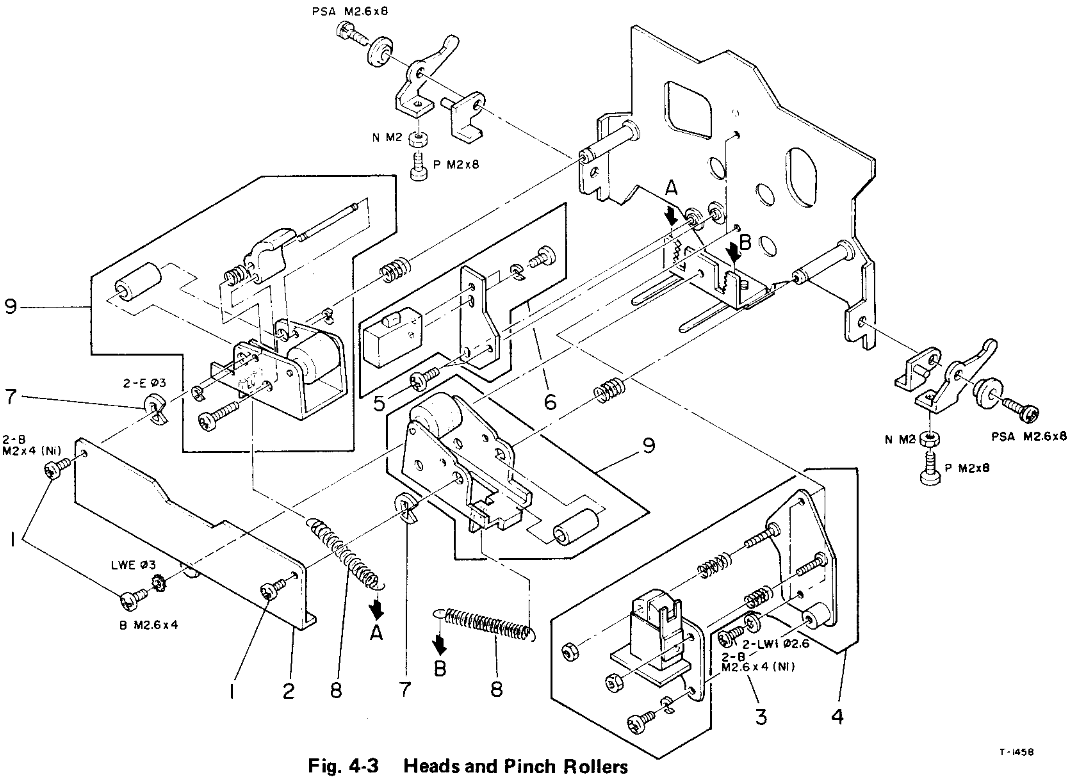

PSA M2.6x8
N M2
P M2x8
A
B
9
2-E ø3
7
2-B M2x4 (NI)
1
LWE ø3
B M2.6x4
5
6
9
A
B
1
2
8
7
8
2-LWI ø2.6
2-B M2.6x4 (NI)
3
4
N M2
PSA M2.6x8
P M2x8
T-1458

Fig. 4-3 Heads and Pinch Rollers

NOTES:

1. After replacing the head(s), always adjust the head alignment, especially the REC & PLAY head's azimuth (see 6-3-1), and then secure the nuts with a drop of locking paint.
2. Solder the wires to the head terminal pins quickly (to prevent breaking of internal wires of the head due to overheating).
3. After replacement, always clean the driving surfaces of the pinch rollers with the TEAC TZ-261B rubber cleaner or with pure alcohol, then go directly to the PINCH ROLLER PRESSURE adjustment section. See page 12.

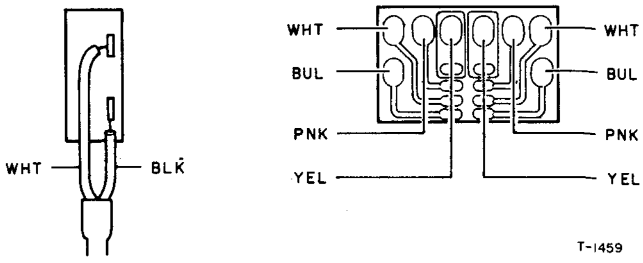

WHT
BLK
WHT
BUL
PNK
YEL
WHT
BUL
PNK
YEL
T-1459

Fig. 4-4 Head Wiring Diagram

4-4 CASSETTE DAMPER (DAMPER CORD STRING)

Preparation

Remove in number-order.

1. Fig. 4-1, 1-thru-13.

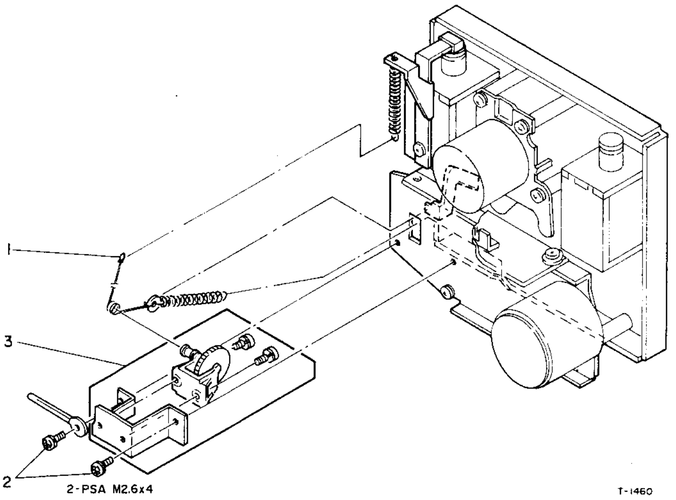


Fig. 4-5 Cassette Damper

4-5 CAPSTAN MOTOR AND CAPSTAN DRIVE ASS'Y (INCLUDING LUBRICATION)

Preparations

Remove in number-order.

1. Fig. 4-1, 1-thru-13.
2. Fig. 4-5, 1

NOTES:
1. Clean all driving surfaces of the flywheels, the motor pulley and the drive belts with TEAC TZ-261 cleaner kit ("A" for flywheel and pulley, "B" for belt) or with pure alcohol.
2. After remounting or replacing the capstan drive ass'y(s), go directly to paragraph 5-4 CAPSTAN DRIVE ASSEMBLY THRUST ADJUSTMENT.

LUBRICATION

Lubrication should be generally done at about every 1,000 hours of operating time of the tape deck. Use high quality oil for this purpose.

For efficient oiling, it is recommended that lubrication be done after nearly 1 hour of idling of the deck and while it is still warm.

1. Apply a drop of a light machine oil of good quality (e.g.: TEAC TZ-255) with an oil applicator to the shaft of the flywheels and spread oil evenly over the shaft with a flannel cloth. After installing the flywheel, be sure to clean the tape moving portion of shaft with TEAC TZ-261A head cleaner or with pure alcohol.

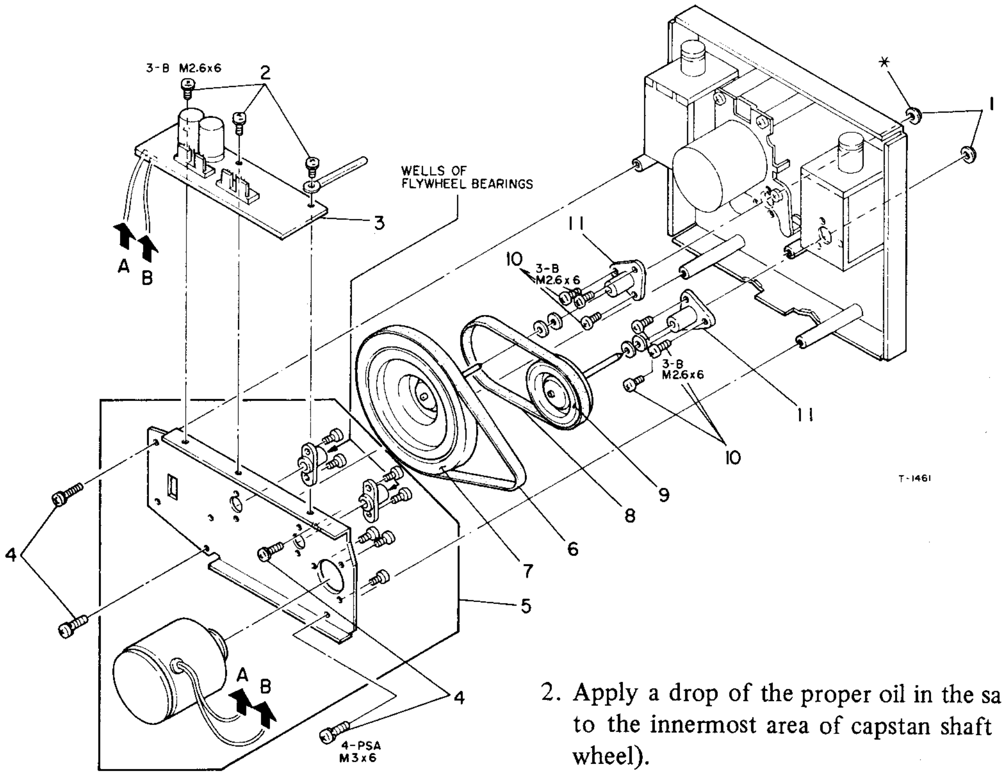


Fig. 4-6 Capstan Motor and Capstan Drive Ass'y

2. Apply a drop of the proper oil in the same way as above to the innermost area of capstan shaft (next to the flywheel).
3. Apply a film of light grease to the well of the flywheel bearing (See Fig. 4-6).

4-6 BRAKE SHOES

Preparation

Remove in number-order.

1. Fig. 4-1, 1, 2.

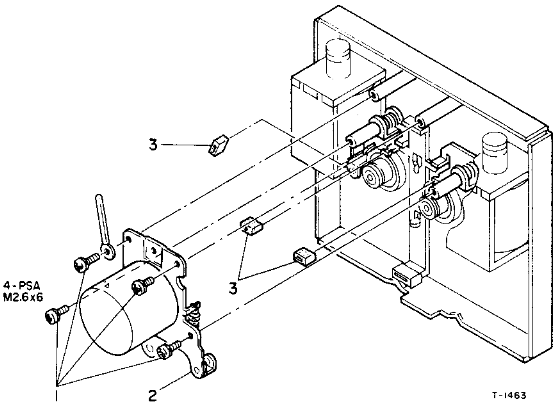

3
4-PSA
M2.6x6
3
3
1
2
T-1463

Fig. 4-7 Brake Shoes

4-7 FAST WIND MOTOR

Preparation

Remove in number-order.

1. Fig. 4-1, 1, 2

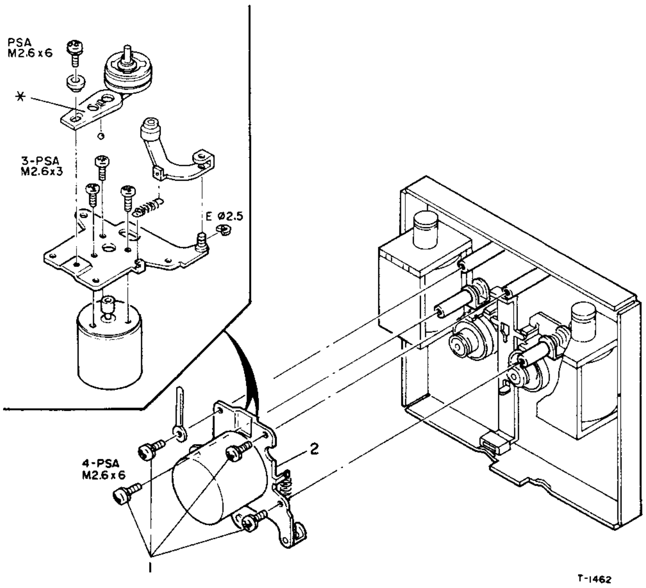

PSA
M2.6x6
*
3-PSA
M2.6x3
E Ø2.5
4-PSA
M2.6x6
2
1
T-1462

Fig. 4-8 Fast Wind Motor

NOTE: When remounting the fast wind idler ass'y (* marked), clean the drive surface of the idler with the TEAC TZ-261B rubber cleaner or with pure alcohol.

4-8 REEL TABLES

Preparations

Remove in number-order.

1. Fig. 4-1, 1-thru-13.
2. Fig. 4-2, all.
3. Fig. 4-5, 1.
4. Fig. 4-6, 1, 4, 5, 6, 7, 8, 9.
5. Fig. 4-8, 1, 2

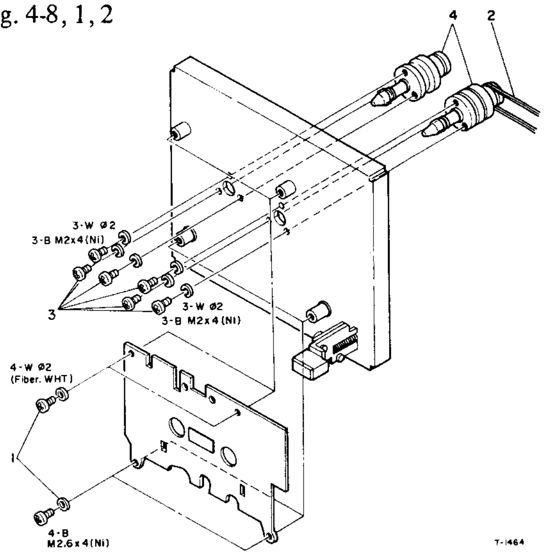

4
2
3-W Ø2
3-B M2x4(Ni)
3
3-W Ø2
3-B M2x4(Ni)
4-W Ø2
(Fiber. WHT)
1
4-B
M2.6x4(Ni)
T-1464

Fig. 4-9 Reel Tables

4-9 IDLER ASS'Y

Preparations

Remove in number-order.

1. Fig. 4-1, 1-thru-13.
2. Fig. 4-5, 1.
3. Fig. 4-6, 1 (marked * only), 4, 5, 6, 7, 8.

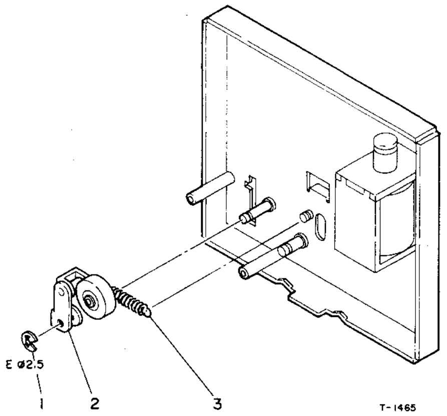

E Ø2.5
1
2
3
T-1465

Fig. 4-10 Idler Ass'y

NOTE: When remounting the idler ass'y, clean the driving surface of the idler with the TEAC TZ-261B rubber cleaner or with pure alcohol.

5. MECHANICAL CHECKS AND ADJUSTMENTS

5-1 REEL TORQUES

Specifications:

Take-up: 40 to 65 g·cm (0.6 to 0.9 oz·inch)
Supply: 5 to 8 g·cm (0.07 to 0.11 oz·inch)

1. Switch on POWER.
2. Load the cassette torque meter (for take-up and supply torques).
3. Place the deck in the play mode and read the pointer indication on the right-hand dial scale to check the take-up torque.
4. While continuously playing, read the pointer indication on the left-hand dial scale to check the supply torque.
5. If the reading(s) are out of the specified range, clean the driving surfaces of the reel table ass'y and all other driving parts relative to the take-up and supply torque function with the TEAC TZ-261B rubber cleaner or with pure alcohol.

5-2 FAST FORWARD AND REWIND TORQUES

Specification:

Fast forward/rewind torques: 100 – 160 g·cm
(1.4 – 2.2 oz·inch)

1. Switch on POWER.
2. Load the cassette torque meter (for fast forward and rewind torqus).
3. Place the deck in the FF or REW mode and read the pointer indication on the dial scale.
4. The meter should indicate a torque of 100 g·cm – 160 g·cm (1.4 – 2.2 oz·inch).
5. If the indication is out of specified range, clean the driving surfaces of the reel table ass'y and all other driving parts relative to the fast forward & rewind torque function with TEAC TZ-261B rubber cleaner or with pure alcohol.

5-3 PINCH ROLLER PRESSURE

Specifications: Take-up: 350 g ±20 g (11.6 oz. to 13.5 oz.)
Supply: 300 g ±20 g (9.9 oz. to 11.3 oz.)

NOTE: Explanation in this section can be applied to both left and right pinch rollers though only the left one is illustrated.

1. Switch on POWER.
2. Close the cassette holder with the holder empty.
3. Press the pressure lever lock arm to set the deck in the continuous PLAY mode even if no tape is loaded.
4. Put the deck in the PLAY mode.
5. Attach the spring scale to the pinch roller shaft.
6. Gently draw the pinch roller away from the capstan shaft in a direction directly downwards until the capstan shaft and the pinch roller are completely separated.
7. Gradually return the scale back until the pinch roller just begins to rotate. The scale should then be reading approx. 350 g ±20 g (11.6 oz. to 13.5 oz.) as the value of the take-up side pinch roller (right) and approx. 300 g ±20 g (9.9 oz. to 11.3 oz.) as the value of the supply side pinch roller (left).
8. If the reading is out of the specified range, adjust the pinch roller pressure by repositioning the hooked end of the pinch roller spring on the spring bracket.

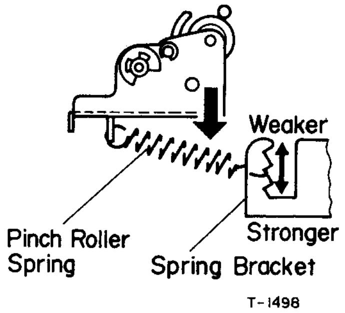


Fig. 5-1 Pinch Roller Pressure Measurement

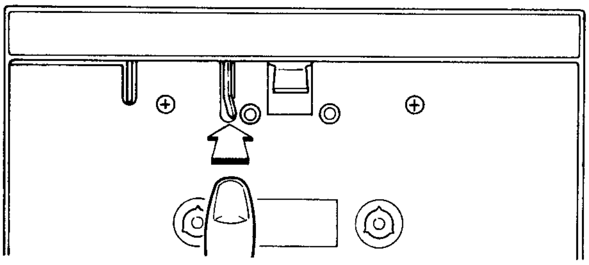


Fig. 5-2 Pressure Lever Lock Arm Location

5-4 CAPSTAN ASSEMBLY THRUST ADJUSTMENT

Specification: 0.2 mm to 0.4 mm

NOTE: For newly replaced capstan drive ass'y first lubricate it referring to paragraph 4-5 on page 10 prior to this adjustment.

1. Keep approx. 1 mm of clearance between the oil retaining washer and the capstan holder so that the washer will not disturb accurate adjusting of the capstan shaft thrust.
2. By using a slot screwdriver with small blade, adjust the thrust adjusting screw so that thrust of the capstan shaft in the longitudinal direction is limited to 0.2 to 0.4 mm. This adjustment can be made by pushing the flywheel toward or away from the front of the deck.
3. Adjust the oil retaining washer height so that, with the capstan shaft in contact with the adjusting screw, there is 0.5 mm clearance between the washer and the capstan holder.

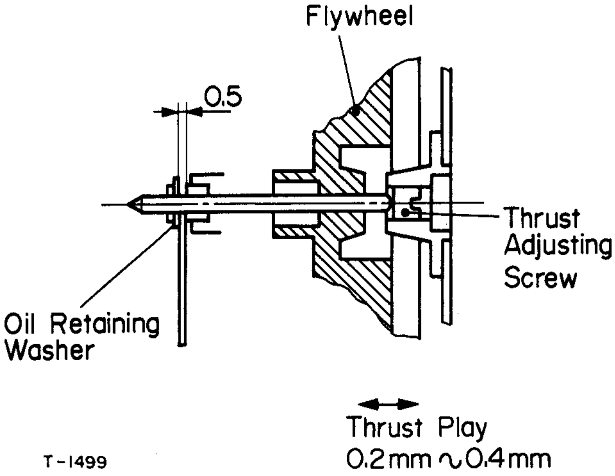

Flywheel
0.5
Thrust Adjusting Screw
Oil Retaining Washer
Thrust Play
0.2mm ∿ 0.4mm
T-1499

Fig. 5-3 Capstan Ass'y Thrust Adjustment

5-5 SOLENOID A POSITION ADJUSTMENT

1. Switch on POWER.
2. Place the deck in PLAY mode with no tape inserted so that solenoid A can be actuated and its plunger can be bottomed. To accomplish this refer to steps 2 to 4 in paragraph 5-3.
3. Make sure that the pressure spring is bent 2 to 2.5 mm beyond its normal relaxed shape when the deck is set to play mode from stop mode repeatedly.
4. If not, adjust the position of the solenoid by loosening the 3 screws.
5. After adjusting, retighten the screws and secure them with a drop of locking paint.
6. Repeat step 3 to confirm proper adjustment.

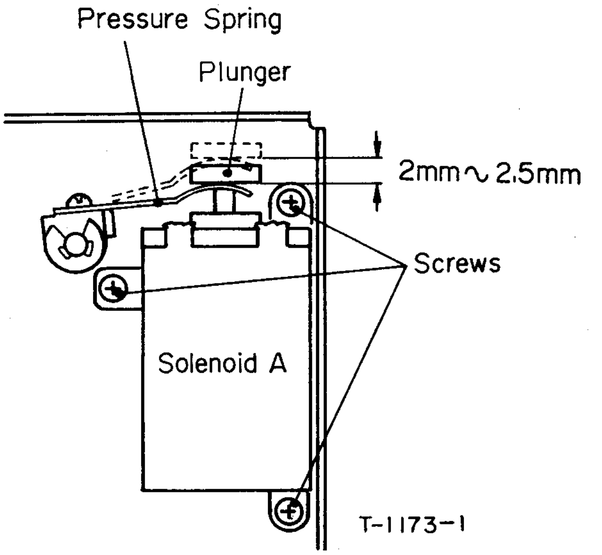

Pressure Spring
Plunger
2mm ∿ 2.5mm
Screws
Solenoid A
T-1173-1

Fig. 5-4 Solenoid A Positioning

5-6 CASSETTE HOLDER MOTION ADJUSTMENTS

1. Load any standard C-60 tape.
2. Ensure that when depressing the EJECT button, the cassette holder with the cassette cover opens smoothly without binding from the closed condition.
3. Shut the cassette holder and the cassette cover with no tape loaded.
4. Check that the cassette holder will open fully when the EJECT button is depressed.
5. If the cassette holder does not open fully, adjust the tension of the damper spring by bending the bent-section of the stopper in either direction indicated by the arrows as illustrated in Fig. 5-5 to obtain the above condition.

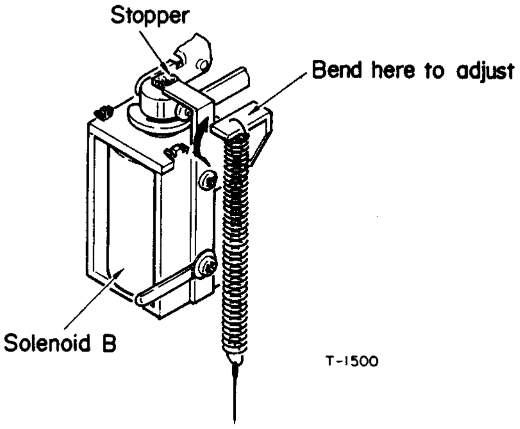

Stopper
Bend here to adjust
Solenoid B
T-1500

Fig. 5-5 Cassette Holder Motion Adjustment

5-7 ADJUSTING CAPSTAN SHAFT/PINCH ROLLER CLEARANCE

1. Switch on POWER.
2. Close the cassette holder with no tape loaded. Depress the pressure lever lock arm (see Fig. 5-2).
3. Set the deck the pause mode.
4. Turn the clearance adjusting screw so that clearance between capstan shaft and pinch roller will meet spec. shown in Fig. 5-6. Do this adjustment respectively in both right capstan shaft/pinch roller and left ones.
5. Tighten the locking nuts.

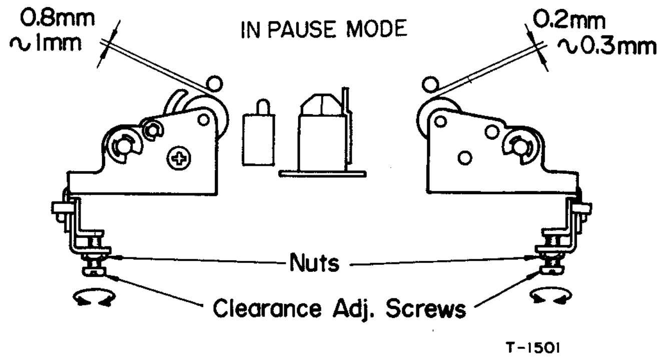

0.8mm ∿ 1mm
IN PAUSE MODE
0.2mm ∿ 0.3mm
Nuts
Clearance Adj. Screws
T-1501

Fig. 5-6 Adjusting Capstan Shaft/Pinch Roller Clearance

5-8 TAPE LIGHT SWITCH POSITION ADJUSTMENT

1. Be sure that when closing the cassette holder, the tape light switch (HOLDER IN) (S8) closes to light the cassette background lamp when the lock lever is about 2 mm in front of its locking position on the lock plate. See Fig. 5-8.
2. If adjustment is wrong, adjust the micro switch bracket position by loosening the screw and moving the bracket in either direction shown by the arrows.
3. After adjusting, temporarily retighten the loosened screw and check that the switch housing and the actuator of the switch do not contact when the cassette holder is in closed condition.
4. Tighten the screw firmly and secure it with a drop of locking paint after completing the above procedures.

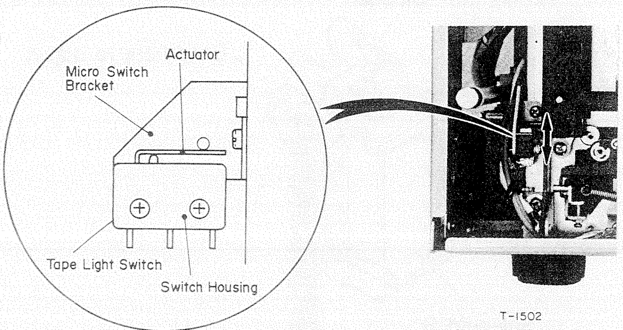


Fig. 5-7 Tape Light Switch Positioning (1)

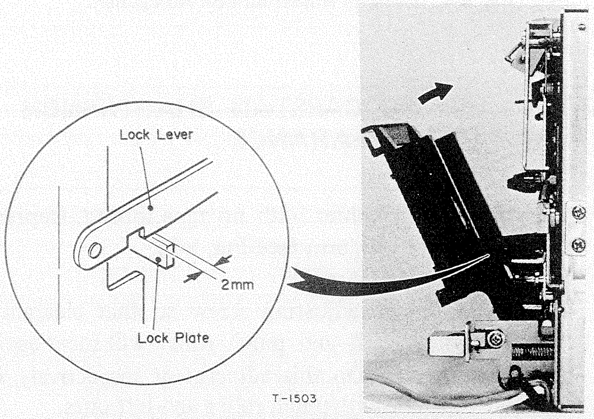


Fig. 5-8 Tape Light Switch Positioning (2)

5-9 CASSETTE-IN SWITCH POSITION ADJUSTMENT

1. Be sure that when inserting any cassette tape in the cassette holder and closing it, the cassette-in switch (S7) is firmly actuated to run the capstan motor.
2. If the capstan motor does not rotate, loosen the screw on the micro switch bracket then slide it in either direction shown by the arrows so that the switch is engaged to ON. Then temporarily retighten the loosened screw.
3. Then press the EJECT button to open the cassette holder. At this time, make certain that the switch is shut off to stop the motor rotation shortly before the actuated cassette pressure lever is locked by the pressure lever lock arm.
4. Ensure that when the EJECT button is pushed down fully, the switch housing and the actuator of the switch do not make contact.
5. Tighten the screw firmly and apply a drop of locking paint onto it to secure it after finishing the above steps.

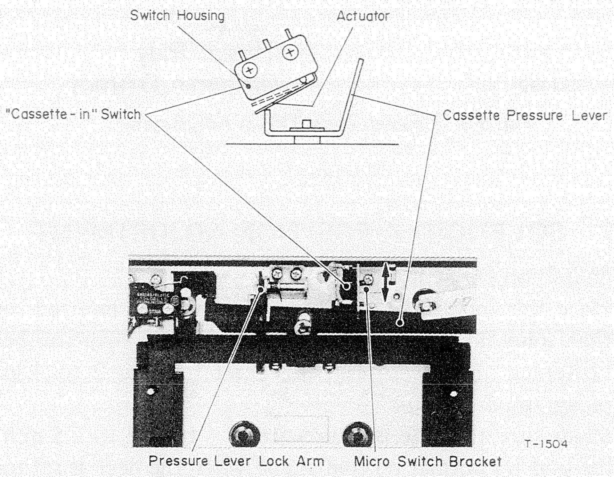


Fig. 5-9 "Cassette-in" Switch Positioning

5-10 RECORD SAFETY SWITCH POSITION ADJUSTMENT

1. Insert a blank cassette tape in the cassette holder. Close the cassette holder.
2. Ensure that when depressing the RECORD button together with play button, deck is securely set in record mode.
3. If not, loosen the 2 screws fixing the micro switch bracket. Adjust the record safety switch (S9) position by moving the bracket for proper activation of the switch.
4. Remove the tape. Load a cassette tape with record protection tab removed. Close the holder.
5. Check that the record preventing lever moves downward, and its bent-projecting portion enters into the tab hole of the tape (to inhibit recording function) as shown in "B" of Fig. 5-10.
6. In addition to the above, ensure that the area of the record preventing lever enclosed in the broken line circle (B) contacts the top surface of the cassette shell.
7. Firmly fasten the bracket after these steps are completed.

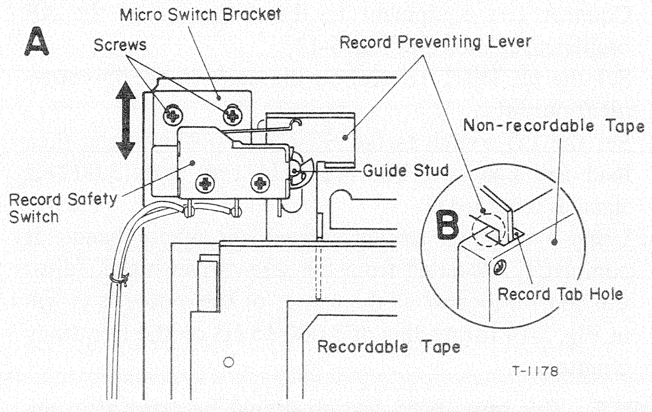

A
Micro Switch Bracket
Screws
Record Preventing Lever
Non-recordable Tape
Guide Stud
B
Record Safety Switch
Record Tab Hole
Recordable Tape
T-1178

Fig. 5-10 Record Safety Switch Positioning

5-11 ADJUSTING HEIGHT OF PINCH ROLLER GUIDE AND REC & PLAY HEADS

1. Depress the pressure lever lock arm (see Fig. 5-2). Load the check base plate jig in the cassette holder. Set the deck in the play mode.
2. Attach the tip of the guide height check jig, resting the check base plate jig under the pinch roller guide (as illustrated in Fig. 5-11) keeping a reasonable distance from the capstan shaft in order not to scratch the shaft.
3. Using this jig, adjust the height of the guide by turning the height adjusting screw. Be careful not to scratch the tape driving surface of the guide.
4. Move the height check jig into proximity with the front surface of the REC & PLAY head.
5. Carefully adjust the two height/azimuth nuts until the tip of the jig just fits under the tape guide of the head as shown in Fig. 5-11.
6. At this time, adjustment should be done with the head parallel to the head bracket ass'y (as far as possible).

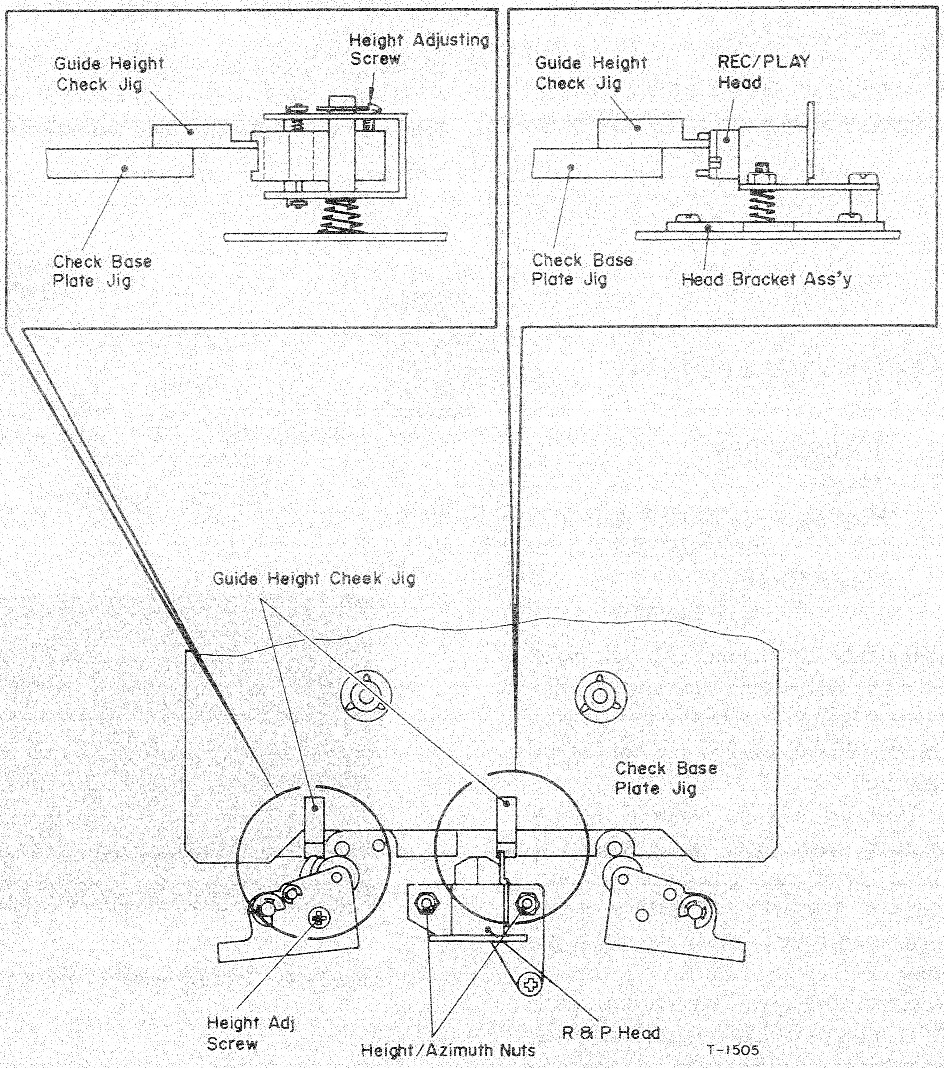

Guide Height Check Jig
Height Adjusting Screw
Check Base Plate Jig
Guide Height Check Jig
REC/PLAY Head
Check Base Plate Jig
Head Bracket Ass'y
Guide Height Cheek Jig
Check Base Plate Jig
Height Adj Screw
Height/Azimuth Nuts
R & P Head
T-1505

Fig. 5-11 Adjusting Height of Pinch Roller Guide and REC & PLAY Head

5-12 TAPE PATH ALIGNMENT

1. Switch on POWER.
2. Install a "mirror-equipped tape path test tape.
3. Set the deck in the play mode and check that the tape runs normally.
4. If there is tape curling at the tape guide of the REC and PLAY head or/and the pinch roller guide, adjust the height of the tape guide of the head by slightly turning the height azimuth nut near the guide (see item 5-11, Fig. 5-11).
5. Note that height adjustment of the pinch roller guide is not permissible.

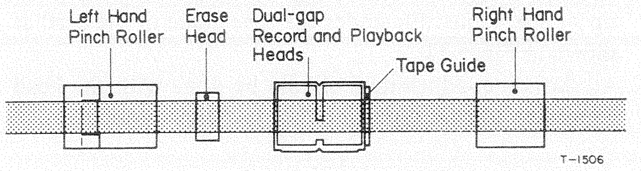


Fig. 5-12 Tape Path Diagram

NOTE: *This diagram shows the head assembly etc. as reflected by the mirror of the TAPE PATH test cassette.

5-13 TAPE SPEED/WOW AND FLUTTER

Specification:

Tape speed deviation:	3,000 Hz ±30 Hz	
Tape speed drift:	30 Hz	
Wow and flutter:	Playback:	0.07% (WRMS) 0.15% (RMS)
	Record/playback:	0.18% (RMS)

NOTE: 1. Before making this adjustment, clean all parts in the tape path, particularly the capstans, the pinch rollers and the heads with the appropriate liquid from the TEAC TZ-261 cleaner kit or with pure alcohol.

2. Wow and flutter should be checked in two ways; playback only and record/playback methods. First correct tape speed and wow and flutter using the playback only method. Then measure wow and flutter using record and playback method.

3. As the measured results may vary with respect to location on tape at which it was taken, three points – at beginning, middle and near the end of the tape – should be measured. The worst case reading must satisfy the specification.

5-13-1 TAPE SPEED

1. Connect test equipment to the deck, except the AF oscillator, as shown in Fig. 5-13.
2. Set the OUTPUT control on the deck to obtain convenient output.
3. Set the EQ switch to the NORMAL position, and then load and play a TEAC MTT-111 test tape (3,000 Hz signal is recorded).
4. Using a common slotted screwdriver whose handle is completely insulated from the screwdriver blade, adjust the control located at the center of the motor as shown in Fig. 5-14 for reading of 3,000 ±5 Hz on the frequency counter.

NOTE: This tape speed setting should be done after approx. 30 seconds of operating time of the deck.

5. Then, verify that the reading on the frequency counter is within the specified range of 3,000 Hz ±30 Hz, and the tape speed drift is within 30 Hz at any portion of the tape run.
6. If the tape speed is extremely out of the specification, check the pinch roller pressure and the tape driving function for correctness, and make sure the tape path is clean.

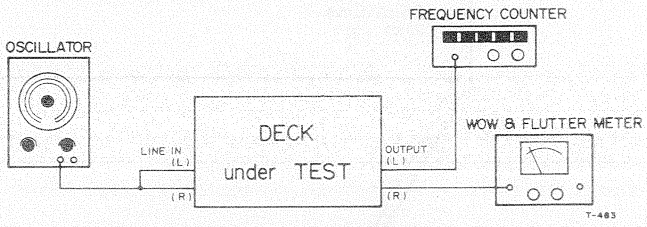


Fig. 5-13 Connection

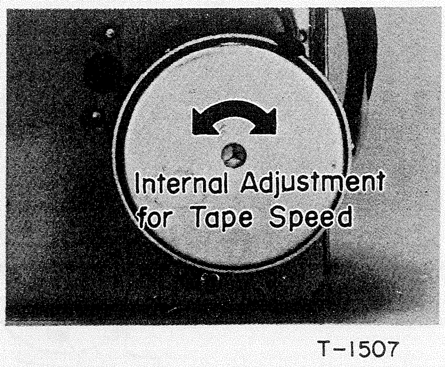


Fig. 5-14 Tape Speed Adjustment Location

5-13-2 WOW AND FLUTTER

After making the tape speed measurement, perform the wow and flutter test using the playback method and the record/playback method successively.

PLAYBACK METHOD

1. Set the EQ switch to the NORMAL position, then load and play the MTT-111 test tape.
2. Read the indication on the wow and flutter meter.
3. The wow and flutter value should be 0.07% WRMS, max. or 0.15% RMS, max.
4. If the wow and flutter is out of specification, check the pinch roller pressure and the take-up and supply torques, see that the tape path is clean, and that the drive belts are not stretched or oily.
5. If the above checks are ineffective for excessive wow and flutter correction, repair or replace the pinch roller(s), the drive belt(s) and/or any other defective parts.

RECORD/PLAYBACK METHOD

NOTE: When using this method, adopt the maximum wow and flutter value obtained by repeated play and stop modes of operation. This operation is necessary to make sure wow and flutter content between record and playback will not be in phase to create a false reading.

1. Connect test equipment to the deck as shown in Fig.5-13.
2. Place the BIAS/EQ switches in the NORMAL positions.
3. Set LINE and OUTPUT controls on the deck to obtain convenient input and output levels.
4. Load a TEAC MTT-501 test tape (blank).
5. Apply and record a 3,000 Hz signal.
6. Rewind and play this recorded section.
7. Read the indication on the wow and flutter meter.
8. The wow and flutter value should be 0.18% RMS max.
9. If the measured value is out of specification, repair using the same methods as stated in steps 4 – 5 in the playback method procedure.

6. ELECTRICAL CHECKS AND ADJUSTMENTS

6-1 GENERAL PRELIMINARY INFORMATION

6-1-1 GENERAL NOTICE

1. Before performing adjustments on the amplifier section of this deck, thoroughly clean and demagnetize the entire tape path, particularly the erase head, record and playback heads, capstan shaft and pinch roller.
2. Make sure the deck is properly set for the voltage in your locality.
3. In general, checks and adjustments, other than specified items, are done in the sequence – left channel then right channel. Double REF. Nos. indicate left channel/right channel (example: VR101/VR201).
4. The value of "dB" in the text refers to 0 dB = 0.775 V, except where specified. If an AC voltmeter calibrated to 0 dB = 1 V is to be used, appropriate compensation should be made.
5. The AC voltmeter used in the procedures, including the measurements at PLAY and REC test points, must have an input impedance of 1 M-ohms or more.
6. To complete these performance checks correctly, follow the order given in this chapter.

6-1-2 PREPARATIONS

1. For each procedure, make the initial equipment test set up and connections as shown in the associated illustrations.
2. Unless indicated otherwise in the procedures, the basic starting conditions for each test will be as given in the chart below.

Switch	Position
MEMORY:	OFF
BIAS:	CrO_2
EQ:	CrO_2
DOLBY NR:	OUT
MONITOR:	TAPE OUTPUT

6-2 D.C. VOLTAGE ADJUSTMENT

1. Adjust R822 on POWER SUPPLY PCB for +23V DC at terminal 22 of the PCB to ground.

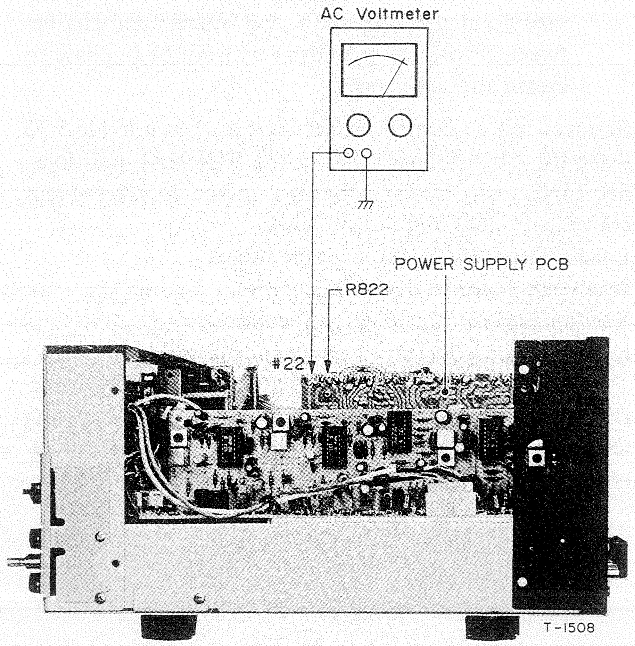

AC Voltmeter
POWER SUPPLY PCB
R822
#22
T-1508

Fig. 6-1 DC Voltage Adjustment

6-3 PLAYBACK PERFORMANCE

6-3-1 RECORD/PLAYBACK HEAD AZIMUTH ADJUSTMENT

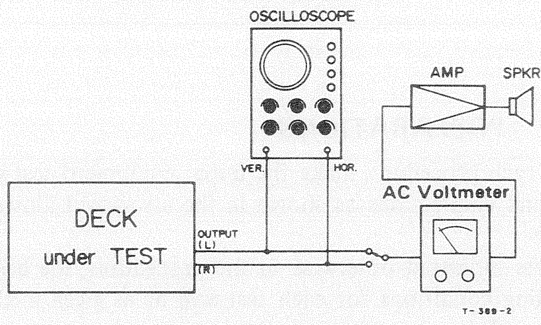

OSCILLOSCOPE
AMP
SPKR
VER.
HOR.
AC Voltmeter
DECK under TEST
OUTPUT (L)
(R)
T-389-2

Fig. 6-2 Connection

1. Load a TEAC MTT-316 test tape and play the 12.5 kHz section on the tape.
2. During playback, slowly adjust the azimuth adjusting nut so that the phase relationship between the L- and R-channels approximates 0 degrees as indicated on the oscilloscope.
3. At this time, ascertain that playback output level is approximately the maximum value on the AC voltmeter.
4. Secure the nut with a drop of locking paint.

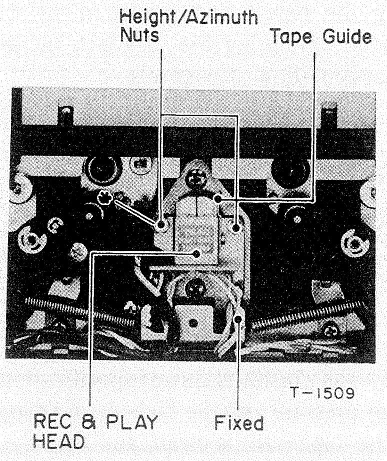

Height/Azimuth Nuts
Tape Guide
T-1509
REC & PLAY HEAD
Fixed

Fig. 6-3 Head Height/Azimuth Adj. Location

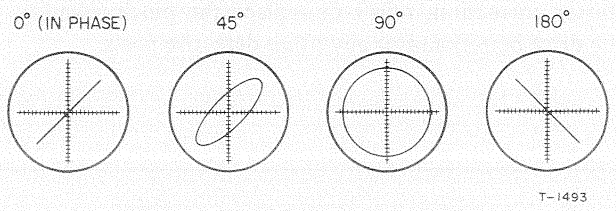

0° (IN PHASE)
45°
90°
180°
T-1493

Fig. 6-4 Confirming Phase Relationship

6-3-2 SPECIFIED OUTPUT LEVEL SETTING

Specifications:

Specified output level: –5 dB (435 mV)

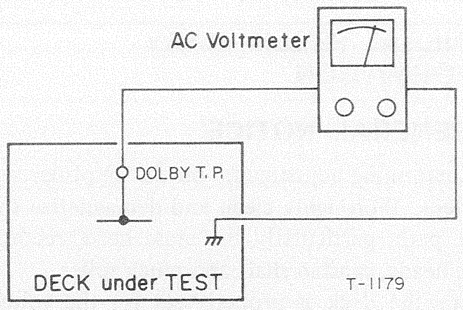

AC Voltmeter
DOLBY T.P.
DECK under TEST
T-1179

Fig. 6-5 Connection

1. Load and play a TEAC MTT-150 test tape.
2. Adjust R11/R21 for 580 mV (–2.5 dB) on AC Voltmeter connected to PLAY test points.
3. Change the AC voltmeter connection to the OUTPUT jack of L-channel.
4. Turn OUTPUT control so that the L-channel output from the deck is set to produce the specified output level of –5 dB (435 mV).
5. Change the AC voltmeter connection to the OUTPUT jack of R-channel.

6. Adjust R23 for R-channel output of –5 dB.
7. Set the OUTPUT control fully clockwise.
8. Confirm that the maximum output level is +1 dB ±2 dB (690 mV to 1.09 V) at both channels.
9. Return the OUTPUT control to the specified setting position.

IMPORTANT: After this setting is done, do not disturb the specified control setting of the OUTPUT control until the remaining checks and adjustment are completed.

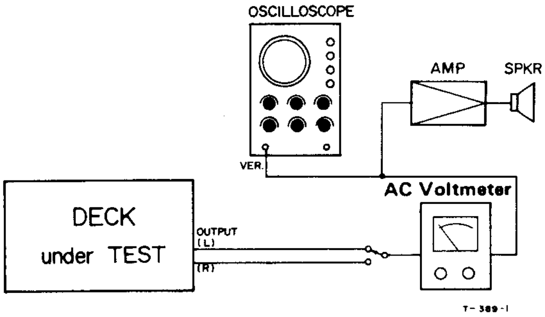


Fig. 6-6 Connection

6-3-3 PEAK LEVEL METER CALIBRATION – PLAYBACK –

Specification: 0 dB (Dᗡ)

10. With the setting specified in paragraph 6-3-2, play a TEAC MTT-150 test tape.
11. Adjust R14/R24 so that the PEAK LEVEL meter indicates 0 dB.
12. Change the MONITOR switch setting to TAPE CAL position and confirm that the meter reads 0 dB ±0.5 dB.

6-3-4 FREQUENCY RESPONSE – PLAYBACK –

CrO_2 tape

13. Load a TEAC MTT-316 test tape and play the 4th section of the tape, voice labelled as 315 Hz, and note this reading as a temporary reference level for the following adjustments.
14. While playing the 10 kHz recorded section, adjust R12/R22 so that 10 kHz gives the same level as the previous reference level in order to keep the higher frequency signals within the given response limits.
15. Then play the required signals for comparison with the playback frequency response limits chart.
16. Check that the readings obtained on the AC voltmeter are within the response limits.

NORMAL tape

17. After achieving the above, set the EQ switch to NORMAL and change the test tape to MTT-216.
18. Play the tape and check that the frequency response limits for NORMAL tape are within the given limits.

NOTE: If the response does not meet the specified response limits, the head should be checked for accumulated oxide or dirt. If no dirt is found, the head azimuth should be readjusted.

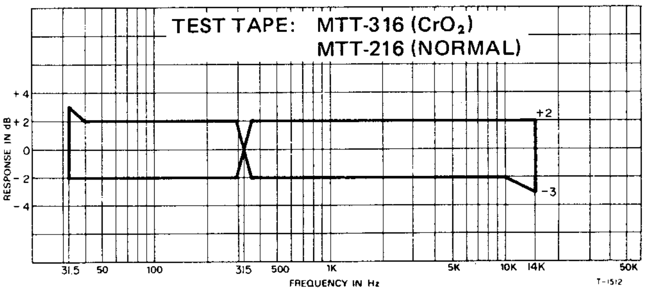


Fig. 6-7 Playback Frequency Response Limits

6-3-5 SIGNAL TO NOISE RATIO – PLAYBACK –

Specifications:

EQ switch, NORMAL: 48 dB (min.)

NORMAL tape

1. Connect the deck and the test equipments as shown in Fig. 6-6 on page 19.
2. Set the EQ switch to NORMAL position.
3. Load and play a TEAC MTT-150 test tape.
4. Confirm that, by reproducing the 400 Hz test tone on the tape, the output from the deck is set to the specified output level of –5 dB (435 mV). If not, repeat the procedure in paragraph 6-3-2.
5. Change the tape to a TEAC MTT-501 test tape completely demagnetized by a bulk tape eraser (such as the TEAC E-2) and play it.
6. Read the indication on the AC voltmeter.
7. Compare the output reading to the specified output level (–5 dB).
8. A difference of 48 dB or more is required.

6-3-6 HEADPHONE OUTPUT LEVEL CHECKS

Specification: –18.8 dB ±2 dB (69 mV to 109 mV)

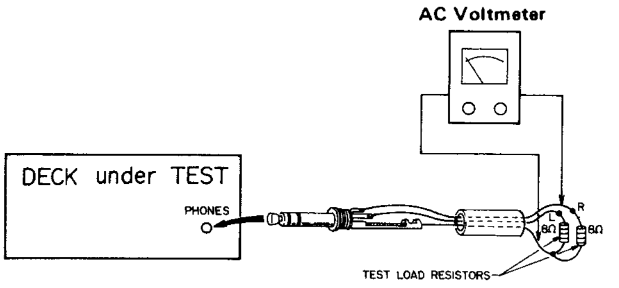


Fig. 6-8 Connection

NOTE: An 8 ohm non-inductive resistor should be used as the test load resistor.

1. Load and play a TEAC MTT-150 test tape.
2. Measure the level across the test load resistor.
3. Level should be –18.8 dB ±2 dB (69 mV to 109 mV).

6-4 MONITOR PERFORMANCE

6-4-1 MINIMUM INPUT LEVEL CHECKS

Specifications:

LINE: –19 dB ±2 dB (69 mV to 109 mV)
MIC: –67 dB ±3 dB (245 μV to 489 μV)

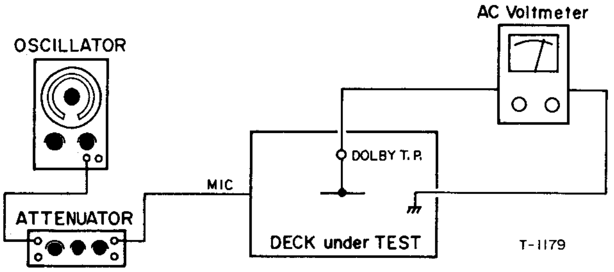


Fig. 6-9 Connection

NOTE: To prevent mis-measurements for the following procedures, any connection cords other than those for the respective input check must be removed.
For example: Do not connect microphone cords to the MIC jacks when checking the LINE IN inputs.

1. Load a blank tape.
2. Put the deck in the RECORD – PAUSE mode.
3. Set the MIC controls to maximum.
4. Apply a 400 Hz signal at –67 dB (346 μV) to the MIC jacks and check for –2.5 dB ±3 dB (411 mV to 820 mV) on the AC voltmeter. (This is the minimum input level check for the MIC jack.)
5. Reduce the MIC controls to minimum and set the LINE controls to maximum.
6. Change the AC voltmeter connection to the OUTPUT jacks and set the MONITOR switch to the SOURCE position.
7. Apply a 400 Hz signal at –19 dB (86.9 mV) to the LINE IN jacks and check that the AC voltmeter shows –5 dB ±2 dB (346 mV to 548 mV). (This is the minimum input level check for the LINE IN inputs).

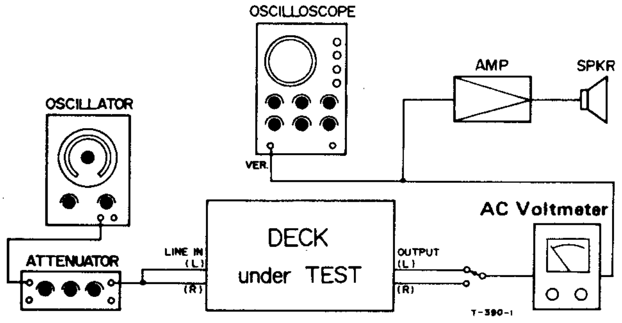


Fig. 6-10 Connection

6-4-2 SPECIFIED LINE CONTROL SETTING

Specification:

Specified input level: –9 dB (275 mV)

8. Change the connection of the AC voltmeter to the L-ch REC test point.
9. Apply a 400 Hz signal at –9 dB (275 mV) to the L-ch LINE IN jack.
10. Set the LINE control to obtain a reading of –2.5 dB (581 mV) on the AC voltmeter.
11. Change the AC voltmeter connection to the R-ch REC test point.
12. Adjust R44 for –2.5 dB reading on the voltmeter.
13. Check that, by changing the voltmeter connection to the OUTPUT jacks, the output level from the deck is –5 dB ±0.5 dB (411 mV to 461 mV).
14. The determined physical position of the LINE controls thus set indicates the specified LINE control setting referred to in subsequent procedures.

IMPORTANT: After this setting has been made, do not disturb the specified control setting of the LINE control until the remaining checks and adjustments are completed.

6-4-3 PEAK LEVEL METER CALIBRATION CHECKS

Specification: 0 dB ± 1 dB

15. Check that indication on the PEAK LEVEL meter on the deck is 0 dB ± 1 dB.

6-5 RECORDING PERFORMANCE

NOTE: Before making any adjustments of the recording circuit, be sure that all tests in the above performance sections have been accomplished. PLAYBACK and MONITOR performance must be properly adjusted, otherwise record calibration will be inaccurate.

6-5-1 BIAS TRAP ADJUSTMENTS

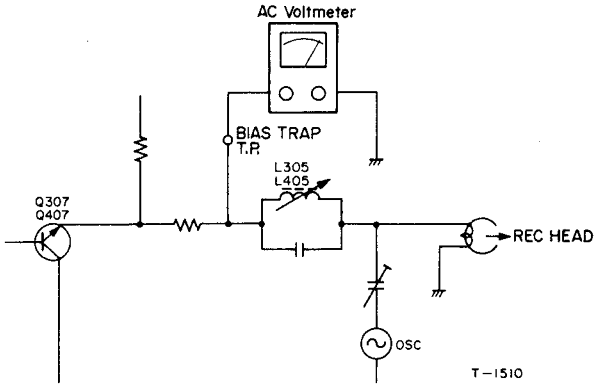


Fig. 6-11 Connection

NOTE: The AC voltmeter used in this procedure must have input impedance of 1M ohm or more.

1. Load a blank tape.
2. Place the deck in the RECORD-PAUSE mode with no signal applied.
3. Adjust L305/L405 for a minimum reading between the BIAS TRAP test points and ground. See Fig. 6-11.

6-5-2 RECORD BIAS SETTING ADJUSTMENT

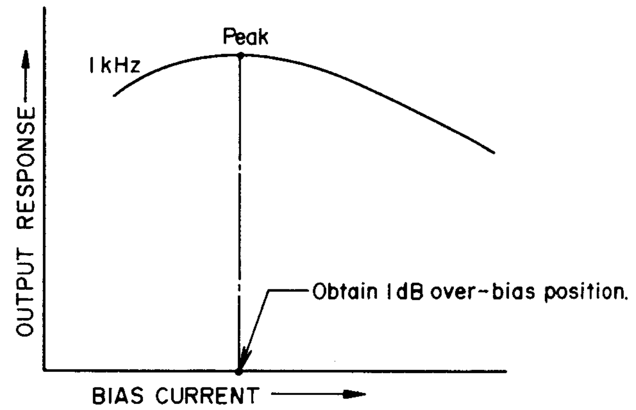
CrO_2 tape

1. Connect the deck and the test equipments as shown in Fig. 6-10 on page 20.
2. Load a TEAC MTT-506 test tape.
3. Set the attenuator so that the input to the deck is −42 dB (6.15 mV).
4. Turn C33/C43 in a counter clockwise direction until the capacitor leaf springs open completely.
5. Record a 1 kHz test tone.
6. Turn C33/C43 slowly clockwise so that the output reading on the AC voltmeter reaches a peak.
7. Then apply and record two tone signals in turn, a 400 Hz signal and a 10 kHz signal.
8. During simultaneous tape monitoring (playing), compare the output level of the 10 kHz signal with the level of the 400 Hz signal. Both signals should indicate almost the same level.
9. Adjust C33/C43 until this (#8) requirement is satisfied.
10. Then record an 18 kHz signal on the tape.
11. While watching the AC voltmeter, make fine adjusting by turning L303/L403 so that the 18 kHz signal level satisfies the frequency response limits in Fig. 6-14.

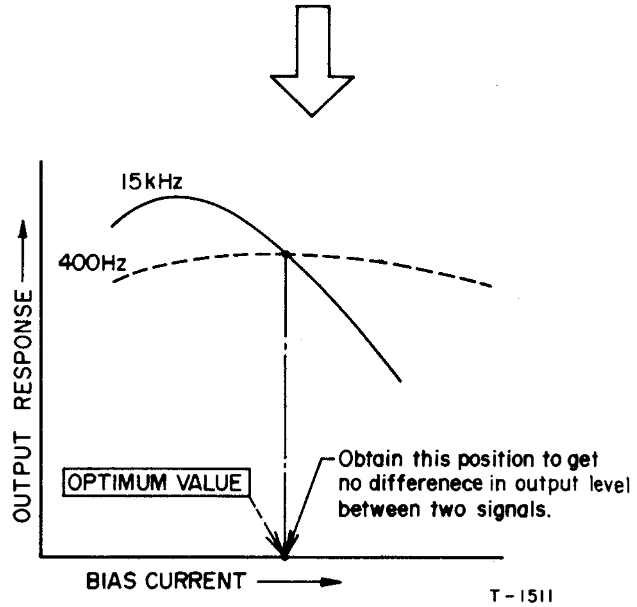
FeCr and NORMAL tapes

12. Repeat the preceding procedure, with the following differences:

	FeCr tape	NORMAL tape
BIAS/EQ switches:	FeCr	NORMAL
Test tape:	MTT-504	MTT-501
Adjustment for BIAS:	C32/C42	C31/C41
Adjustment for freq. spec.:	L302/L402	L301/L401
Different freq. in step 10, 11:	18 kHz	16 kHz



Coarse adjustment



Fine adjustment

Fig. 6-12 Bias Adjustment

6-5-3 RECORD LEVEL SETTING

CrO_2 tape

13. Set the BIAS/EQ switches to the CrO_2 position and load a TEAC MTT-150 test tape.
14. Play the tape and make sure that levels from OUTPUT jacks are –5 dB (436 mV).
15. Change tape MTT-506.
16. Apply and record a 400 Hz test signal at –12 dB (195 mV).
17. Then conduct simultaneous record/playback monitoring.
18. Adjust R33/R43 until the deck's output indicates –8 dB (308 mV).

FeCr and NORMAL tapes

19. Repeat the above procedures using the following substitutions.

	FeCr tape	NORMAL tape
BIAS/EQ switches:	FeCr	NORMAL
Test tapes:	MTT-504	MTT-501
Adjustments:	R32/R42	R31/R41

6-5-4 DISTORTION CHECKS

Specifications:

2.0% or less (with all kinds of tape)

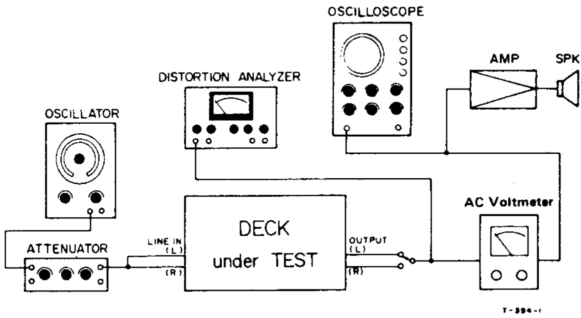


Fig. 6-13 Connection

CrO_2 tape

1. Load a TEAC MTT-506 test tape.
2. Apply and record a 400 Hz test tone at –12 dB (195 mV).
3. Rewind and play this recorded section.
4. Read the indicated value on the distortion analyzer.

FeCr and NORMAL tapes

5. Repeat the above "CrO_2 tape" procedure for FeCr and NORMAL tapes with the following exceptions.

	FeCr tape	NORMAL tape
BIAS/EQ switches:	FeCr position	NORMAL position
Test tape:	MTT-504	MTT-501

6-5-5 FREQUENCY RESPONSE –OVERALL–

CrO_2 tape

1. Connect the deck and the test equipments as shown in Fig. 6-10.
2. Load a TEAC MTT-506 test tape.
3. Apply and record a test signal required in the Fig. 6-14, at –42 dB (6.15 mV).
4. With the simultaneous record/playback function, make sure the readings on the AC voltmeter are within the response limits.
5. In case of any deviation in the high frequency range of the response limits, clean the heads and do again the L303/L403 setting described in step 11 in paragraph 6-5-2.

FeCr and NORMAL tapes

6. Repeat the above procedure, with the following exceptions.

	FeCr tape	NORMAL tape
BIAS/EQ switches:	FeCr position	NORMAL position
Test tape:	MTT-504	MTT-501
Chart:	Fig. 6-15	Fig. 6-16
Adjustment:	L302/L402	L301/L401

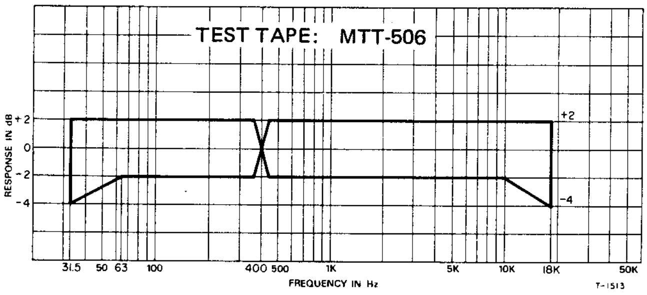


Fig. 6-14 Overall Frequency Response Limits (CrO_2)

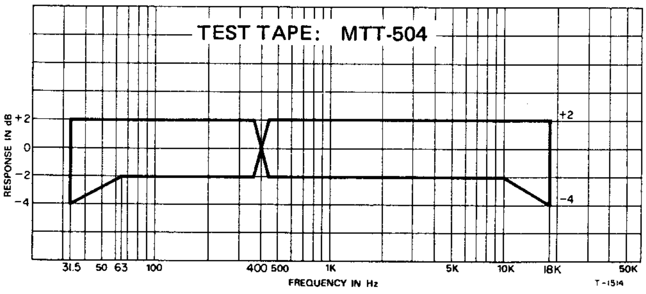


Fig. 6-15 Overall Frequency Response Limits (FeCr)

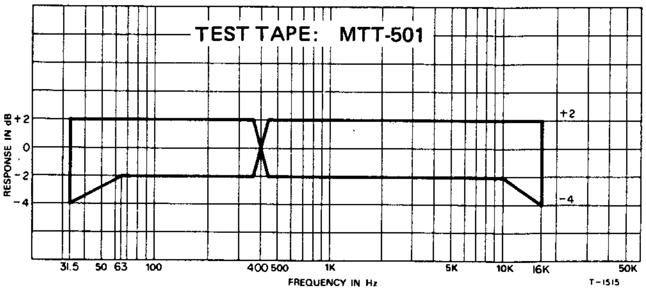


Fig. 6-16 Overall Frequency Response Limits (NORMAL)

6-5-6 SIGNAL TO NOISE RATIO – OVERALL –

Specifications:

CrO_2 and FeCr tapes:	48 dB (min.)
NORMAL tape:	45 dB (min.)

CrO_2 tape

1. Connect the deck and the test equipment as shown in Fig. 6-10.
2. Initially make sure that deck is set in the specified recording and playback condition.
3. Load the TEAC MTT-506 test tape.
4. Apply and record specified input level of –9 dB (275 mV) of 1 kHz signal for several seconds.
5. Then continue recording with no signal applied for a few seconds.
6. Rewind the tape to the beginning of the 1 kHz signal recorded portion.
7. Play and obtain the output level difference between the 1 kHz signal recorded portion and the no signal recorded portion.

FeCr and NORMAL tapes

8. Repeat the preceding procedures using the following substitutions.

	FeCr tape	NORMAL tape
BIAS/EQ switches:	FeCr position	NORMAL position
Test tape:	MTT-504	MTT-501

6-5-7 ERASE EFFICIENCY

Specification: 65 dB (min.)

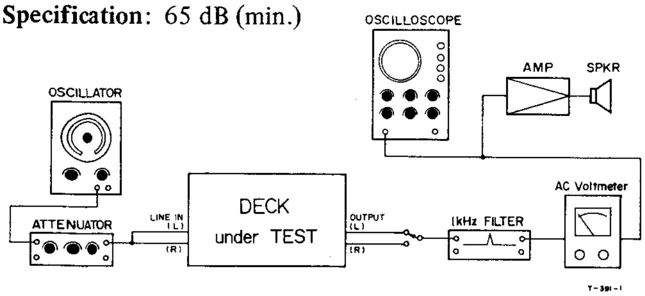


Fig. 6-17 Connection

NOTE: To measure erase efficiency, a 1 kHz narrow band-pass filter should be used. The test signal delivered from the AF oscillator should be tuned to the filter used.

Numbers in parentheses correspond to steps in Fig. 6-18.

1. Load a TEAC MTT-506 test tape.
2. Apply and record a 1 kHz signal at +1 dB (0.869 V, saturation level) for several seconds . . . . (1)
3. Rewind the tape to the mid-point of the recording and remove the signal from the LINE IN jacks . . . . (2)
4. Place the deck in the record mode and record through this previously recorded portion with no input signal applied. . . . . (3)
5. Rewind the tape to the starting point of the 1 kHz signal recorded portion . . . . (4)
6. Play the tape and read the indication on the AC voltmeter to obtain the output level of both the unerased portion and the erased portion of the recorded section . . . . (5)
7. Measure the output level difference between the 2 portions.

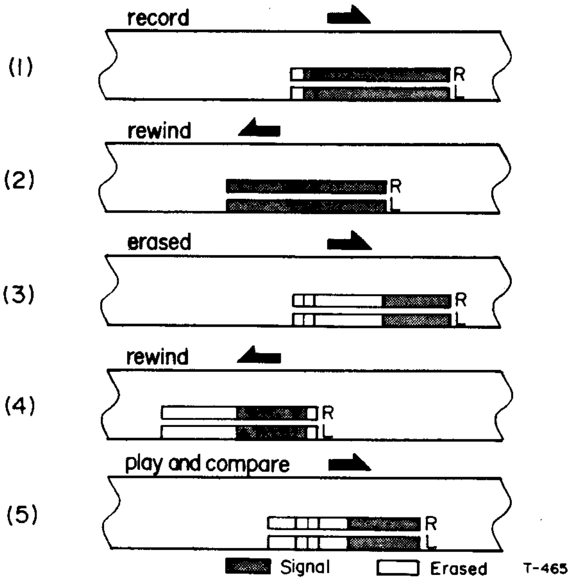


Fig. 6-18 Erase Efficiency Check Procedure

6-5-8 REC MUTE FUNCTION CHECK

Specification:

Difference between specific recorded portion and erased internal portion: 65 dB (min.)

NOTE: For this check, a 1 kHz narrow bandpass filter should be used. The test signal delivered from the AF oscillator should be tuned to the filter used.

1. Connect the deck and the test equipment as shown in Fig. 6-10.
2. Load TEAC MTT-506 test tape.
3. Apply and record a 1 kHz signal at +1 dB (0.869 mV) for several seconds.
4. Push the REC MUTE button so that it will cause the tape to run with no incoming signal recording for several seconds.
5. Push the forward button again to make normal recording for a short duration.
6. Rewind the tape to the original starting point of the 1 kHz signal recorded portion.
7. Play the tape and obtain the output level of both the recorded portion and the created no signal portion.
8. Measure the output level difference between the portions.
9. A 65 dB difference or more is required.

6-5-9 CHANNEL SEPARATION

Specification: 35 dB (min.)

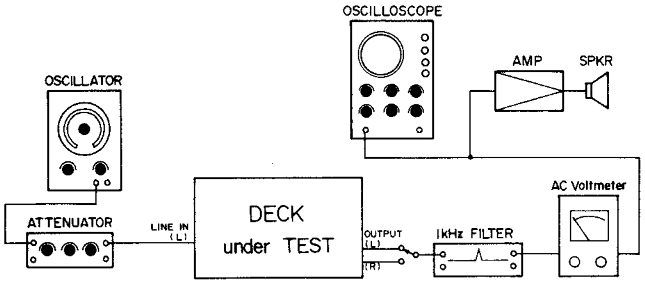

OSCILLOSCOPE
AMP
SPKR
OSCILLATOR
AC Voltmeter
ATTENUATOR
LINE IN (L)
DECK under TEST
OUTPUT (L)
(R)
1kHz FILTER
T-392-1

Fig. 6-19 Connection

NOTE: To check channel separation (cross talk between channels), a 1 kHz narrow bandpass filter should be used. The test signal delivered from an AF oscillator should be tuned to the filter used.

Numbers in parentheses correspond to steps in Fig. 6-20.

1. Load a TEAC MTT-506 test tape.
2. Apply a 1 kHz test tone at –9 dB (274 mV) to the left channel.
3. Place the deck in the record mode for about 30 seconds. .... (1)
4. Rewind the tape to the starting point of recording. .... (2)
5. Play the tape and measure the output level differences between the left and right channels. .... (3)

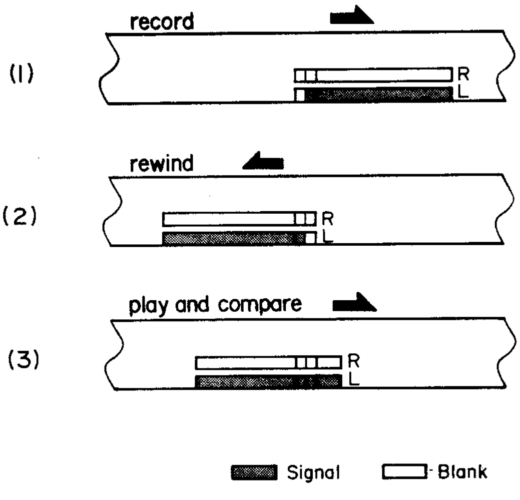

record
(1)
R
L
rewind
(2)
R
L
play and compare
(3)
R
L
▨ Signal
☐ Blank
T-467

Fig. 6-20 Channel Separation Check Procedure

6-5-10 ADJACENT TRACK CROSSTALK MEASUREMENT

Specification: 40 dB (min.)

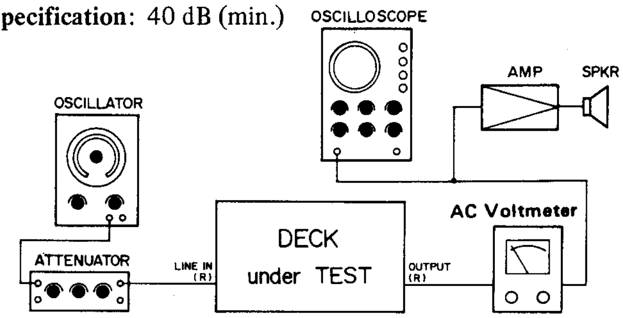

OSCILLOSCOPE
AMP
SPKR
OSCILLATOR
AC Voltmeter
ATTENUATOR
LINE IN (R)
DECK under TEST
OUTPUT (R)
T-393-1

Fig. 6-21 Connection

NOTE: The tape must be completely erased prior to this procedure. Preferably use bulk erased tape.

Numbers in parentheses correspond to steps in Fig. 6-22.

1. Load TEAC MTT-506 test tape.
2. Apply a 125 Hz test signal at –9 dB (274 mV).
3. Place the deck in the record mode for about 30 seconds. .... (1)
4. Rewind the tape to the starting point of recording. .... (2)
5. Play the tape and measure the output level of the recorded portion. Note this reading for temporary reference level for the following measurements ..... (3)
6. Remove the test tape, turn it over and replace it in the deck .... (4)
7. Play the tape back and read the output level ..... (5)
8. Get the difference between this reading and the reading previously measured for the 125 Hz signal.

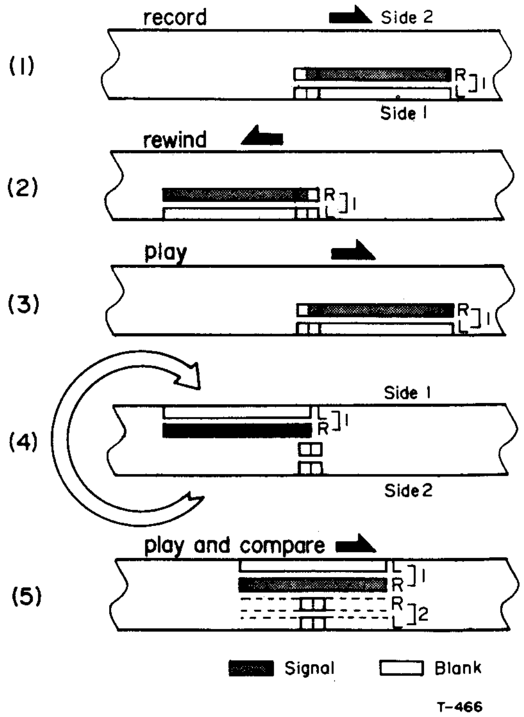

record
Side 2
(1)
R
L
1
Side 1
rewind
(2)
R
L
1
play
(3)
R
L
1
Side 1
(4)
L
R
1
Side2
play and compare
(5)
L
R
1
R
L
2
▨ Signal
☐ Blank
T-466

Fig. 6-22 Adjacent Track Crosstalk Measurement Procedure

6-5-11 DOLBY NR EFFECT MEASUREMENT

Specifications:

Variation from reference at 1 kHz: 3.5 dB to 7.5 dB
Variation from reference at 10 kHz: 8 dB to 12 dB

(1) 1 kHz recorded w/DOLBY NR in OUT

1. Connect the deck and the test equipment as shown in Fig. 6-10.
2. Make sure that the DOLBY NR switch is set in the OUT position.
3. Load a TEAC MTT-506 test tape.
4. Apply and record a 1 kHz signal at –29 dB (27.5 mV).
5. Rewind and play this recorded section.
6. While playing the 1 kHz signal, read the indication of the output level on the AC voltmeter with the DOLBY NR switch at OUT and IN positions.
7. The output level should vary 3.5 dB to 7.5 dB between the OUT and IN positions.

(2) 1 kHz recorded with DOLBY NR set to OUT and IN positions.

8. Repeat the above procedure, but record at –39 dB (8.69 mV) with DOLBY NR switch in OUT then IN positions, and measure in IN position. Specification is the same as that of item (1).

(3) 10 kHz recorded with the DOLBY NR in the OUT position.

9. Repeat the above (1) procedure changing the applied test signal to 10 kHz at –39 dB.
10. The variation should be 8 dB to 12 dB.

(4) 10 kHz recorded with the DOLBY NR switch in both OUT and IN positions.

11. Conduct the (2) procedure changing the test signal to 10 kHz at –49 dB (2.75 mV). Specification is the same as that for item (3).

6-6 ADJUSTMENT AND TEST POINT LOCATIONS

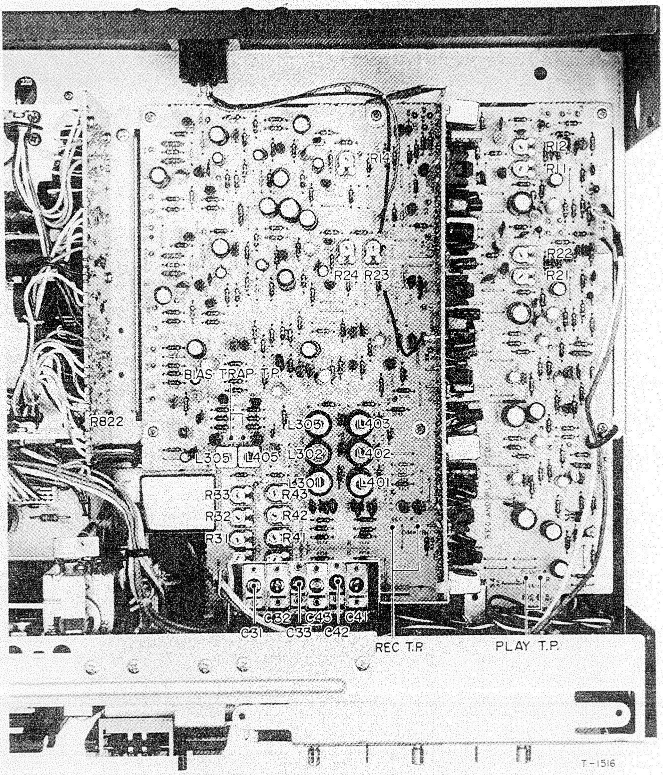


Fig. 6-23 Adjustment and Test Point Location (1)

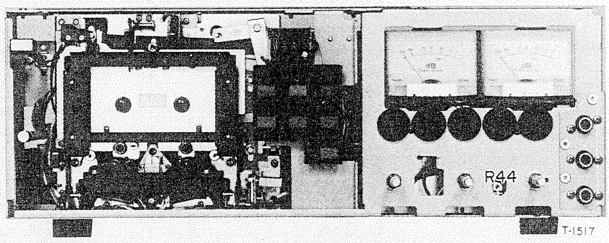
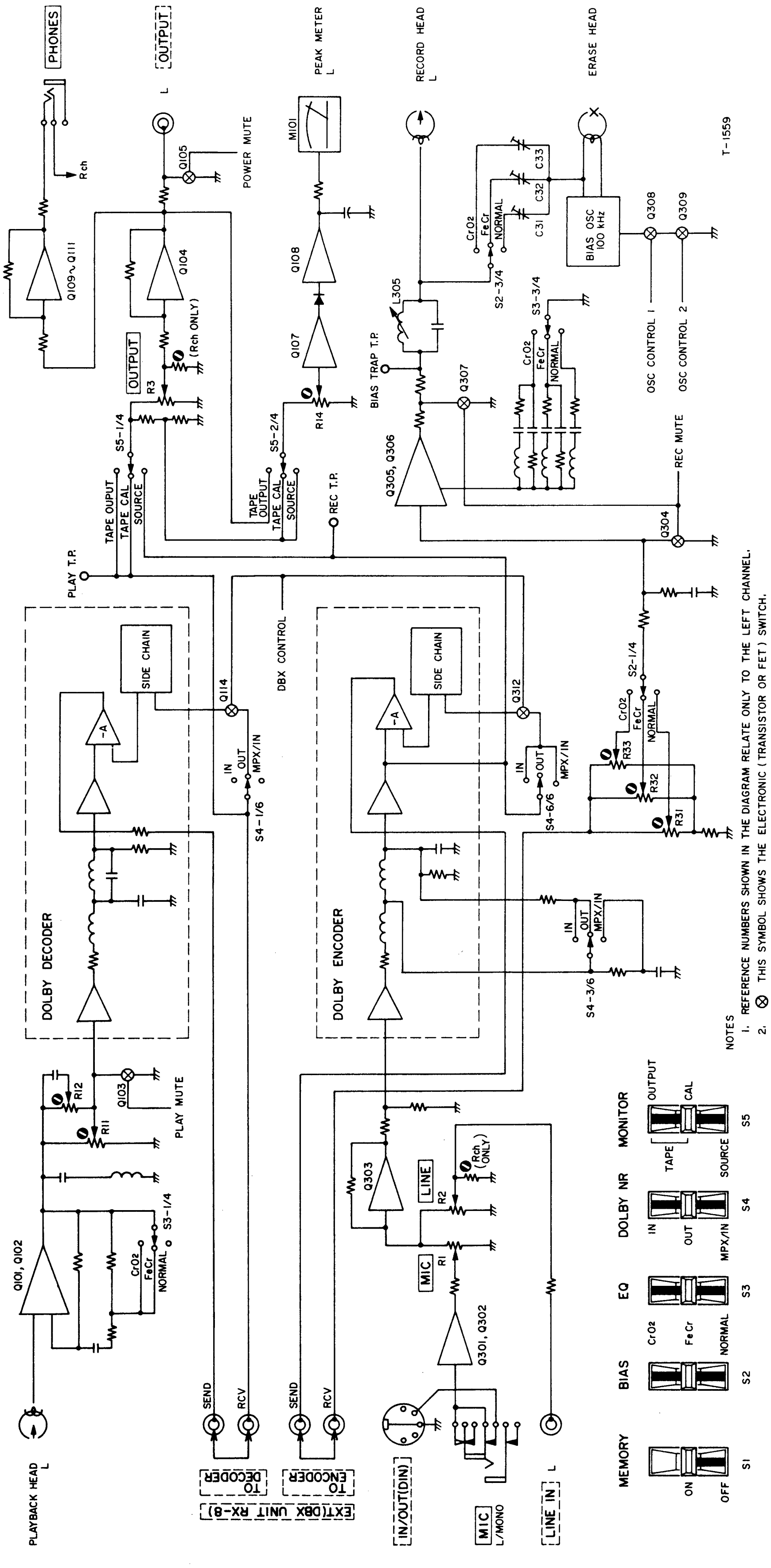


Fig. 6-24 Adjustment Location (2)

C31/C41	Bias adjustment (NORMAL)
C32/C42	Bias adjustment (FeCr)
C33/C43	Bias adjustment (CrO_2)
L301/L401	Record Equalization (NORMAL)
L302/L402	Record Equalization (FeCr)
L303/L403	Record Equalization (CrO_2)
L305/L405	Bias trap adjustment
R11/R21	Playback Level adjustment
R12/R22	Playback equalization
R23	Output level balance (R-ch)
R14/R24	Peak level meter adjustment
R31/R41	Record level adjustment (NORMAL)
R32/R42	Record level adjustment (FeCr)
R33/R43	Record level adjustment (CrO_2)
R822	Amplifier DC power supply adjustment

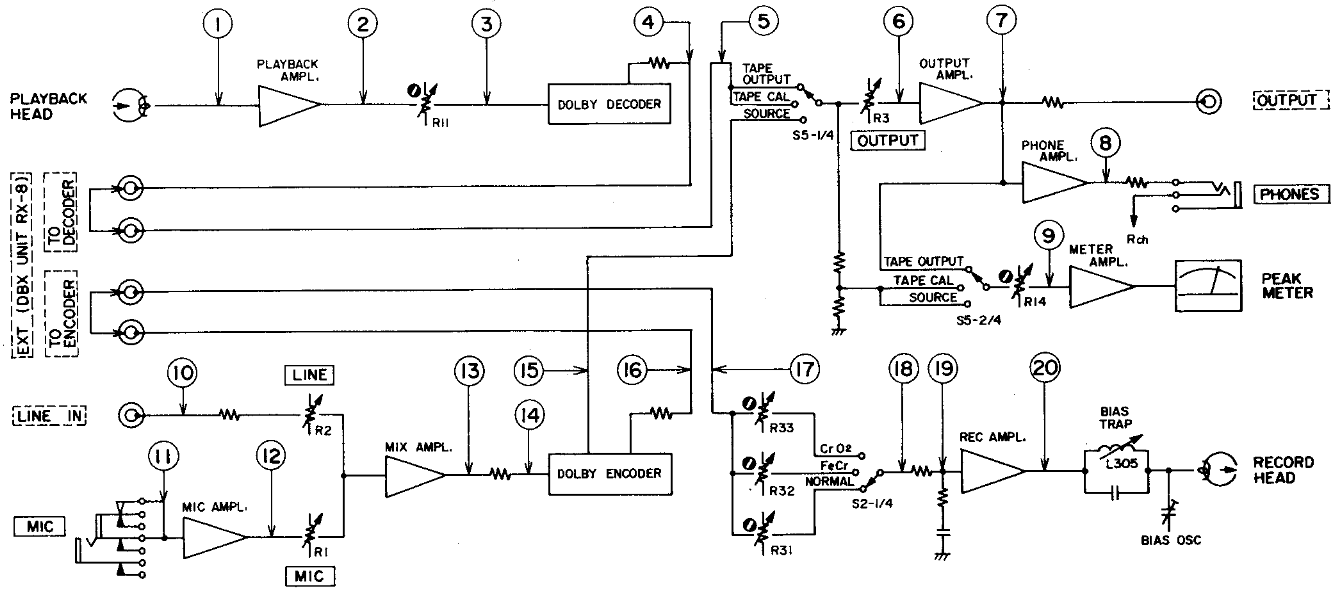
7. BLOCK DIAGRAM


PHONES
OUTPUT
PEAK METER L
RECORD HEAD L
ERASE HEAD
Rch
Q109~Q111
Q105
POWER MUTE
Q104
(Rch ONLY)
OUTPUT
R3
M101
Q108
Q107
R14
BIAS TRAP T.P.
L305
Q307
Q305, Q306
CrO2
FeCr
NORMAL
S2-3/4
C31
C32
C33
BIAS OSC 100 kHz
Q308
Q309
S3-3/4
OSC CONTROL 1
OSC CONTROL 2
T-1559
REC MUTE
Q304
S5-1/4
TAPE OUPUT
TAPE CAL
SOURCE
S5-2/4
TAPE OUTPUT
REC T.P.
PLAY T.P.
DBX CONTROL
SIDE CHAIN
-A
Q114
IN
OUT
MPX/IN
S4-1/6
Q312
S4-6/6
S2-1/4
R33
R32
R31
S4-3/6
DOLBY DECODER
DOLBY ENCODER
R12
R11
Q103
PLAY MUTE
S3-1/4
Q101, Q102
Q303
LINE
R2
Rch (ONLY)
MIC
R1
Q301, Q302
SEND
RCV
PLAYBACK HEAD L
TO DECODER
TO ENCODER
EXT(DBX UNIT RX-8)
IN/OUT(DIN)
MIC L/MONO
LINE IN L
MEMORY
ON
OFF
S1
BIAS
CrO2
FeCr
NORMAL
S2
EQ
S3
DOLBY NR
IN
OUT
MPX/IN
S4
MONITOR
TAPE
OUTPUT
CAL
SOURCE
S5

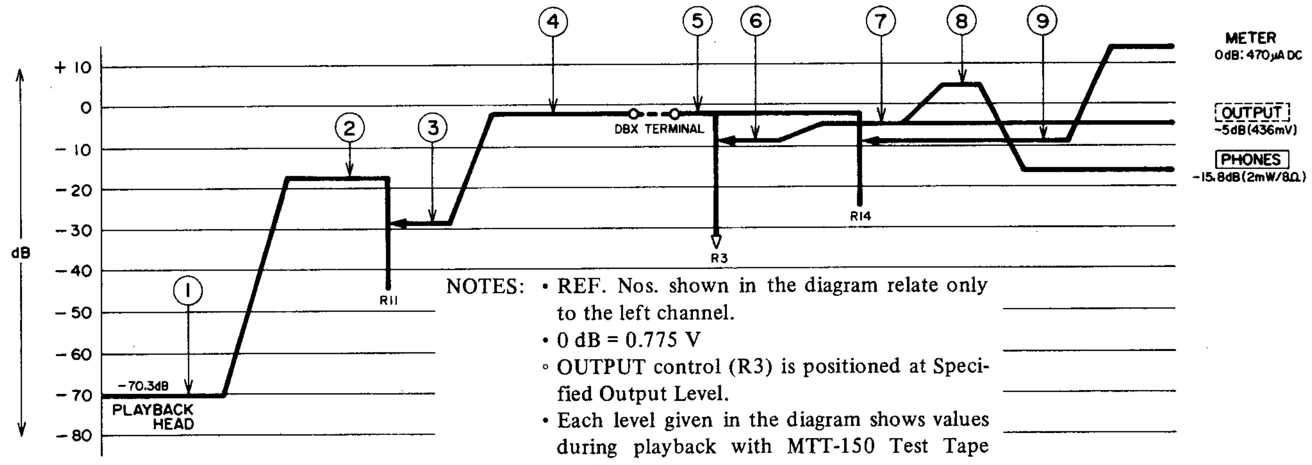
NOTES
1. REFERENCE NUMBERS SHOWN IN THE DIAGRAM RELATE ONLY TO THE LEFT CHANNEL.
2. ⊗ THIS SYMBOL SHOWS THE ELECTRONIC (TRANSISTOR OR FET) SWITCH.

Fig. 7-1

8. LEVEL DIAGRAM

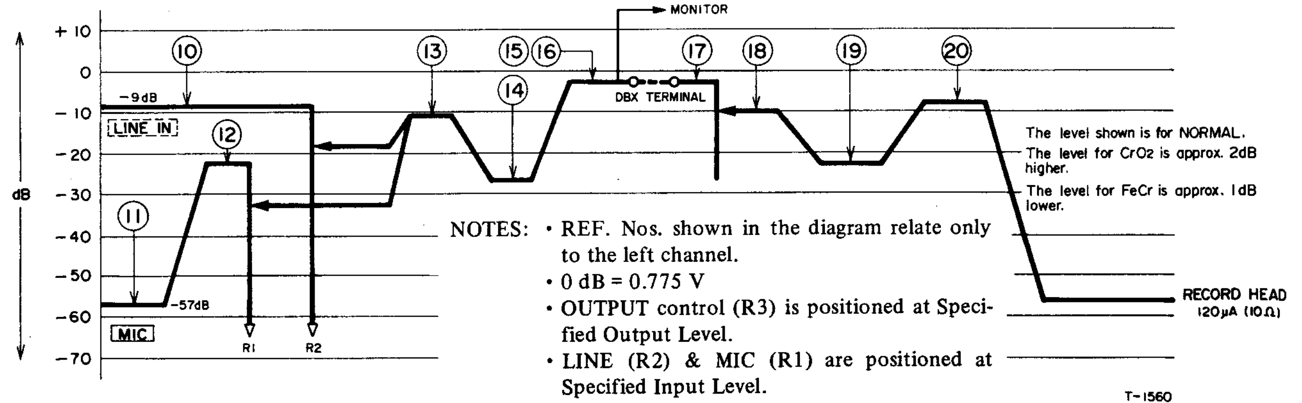

PLAYBACK HEAD
PLAYBACK AMPL.
R11
DOLBY DECODER
TAPE OUTPUT
TAPE CAL
SOURCE
S5-1/4
R3
OUTPUT
OUTPUT AMPL.
OUTPUT
PHONE AMPL.
PHONES
Rch
TAPE OUTPUT
TAPE CAL
SOURCE
R14
S5-2/4
METER AMPL.
PEAK METER
EXT (DBX UNIT RX-8)
TO DECODER
TO ENCODER
LINE IN
LINE
R2
MIC
MIC AMPL.
R1
MIC
MIX AMPL.
DOLBY ENCODER
R33
R32
R31
CrO2
FeCr
NORMAL
S2-1/4
REC AMPL.
BIAS TRAP
L305
BIAS OSC
RECORD HEAD
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
⑯
⑰
⑱
⑲
⑳

PLAYBACK SYSTEM



NOTES:
- REF. Nos. shown in the diagram relate only to the left channel.
- 0 dB = 0.775 V
- ◦ OUTPUT control (R3) is positioned at Specified Output Level.
- Each level given in the diagram shows values during playback with MTT-150 Test Tape (Dolby tone).

RECORDING SYSTEM



NOTES:
- REF. Nos. shown in the diagram relate only to the left channel.
- 0 dB = 0.775 V
- OUTPUT control (R3) is positioned at Specified Output Level.
- LINE (R2) & MIC (R1) are positioned at Specified Input Level.
- Each level given in the diagram shows values when a 400 Hz Specified Input Level is applied.

Fig. 8-1

9. VOLTAGE AND FREQUENCY SETTING

9-1 VOLTAGE SELECTOR SETTING PROCEDURE (FOR GENERAL EXPORT MODELS)

1. Disconnect the power cord of the deck from the source.
2. Remove the deck cover by removing four screws on each side. Locate the selector near the transformer inside the voltage deck.
3. To increase the selected voltage, turn the slotted center post clockwise using a screwdriver or other suitable tool.
4. To decrease the selected voltage, turn the slotted center post counter-clockwise.
5. The numerals that appear in the cut-out window of the voltage selector indicate the selected voltage (100, 117, 220 or 240).

9-2 AC POWER LINE FREQUENCY ADAPTATION

For Cassette deck models with DC Capstan and Reel Motors, no modification is required for change of power line frequency from 60 Hz to 50 Hz and vice versa.

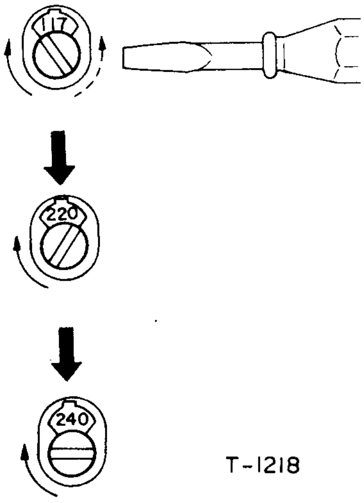
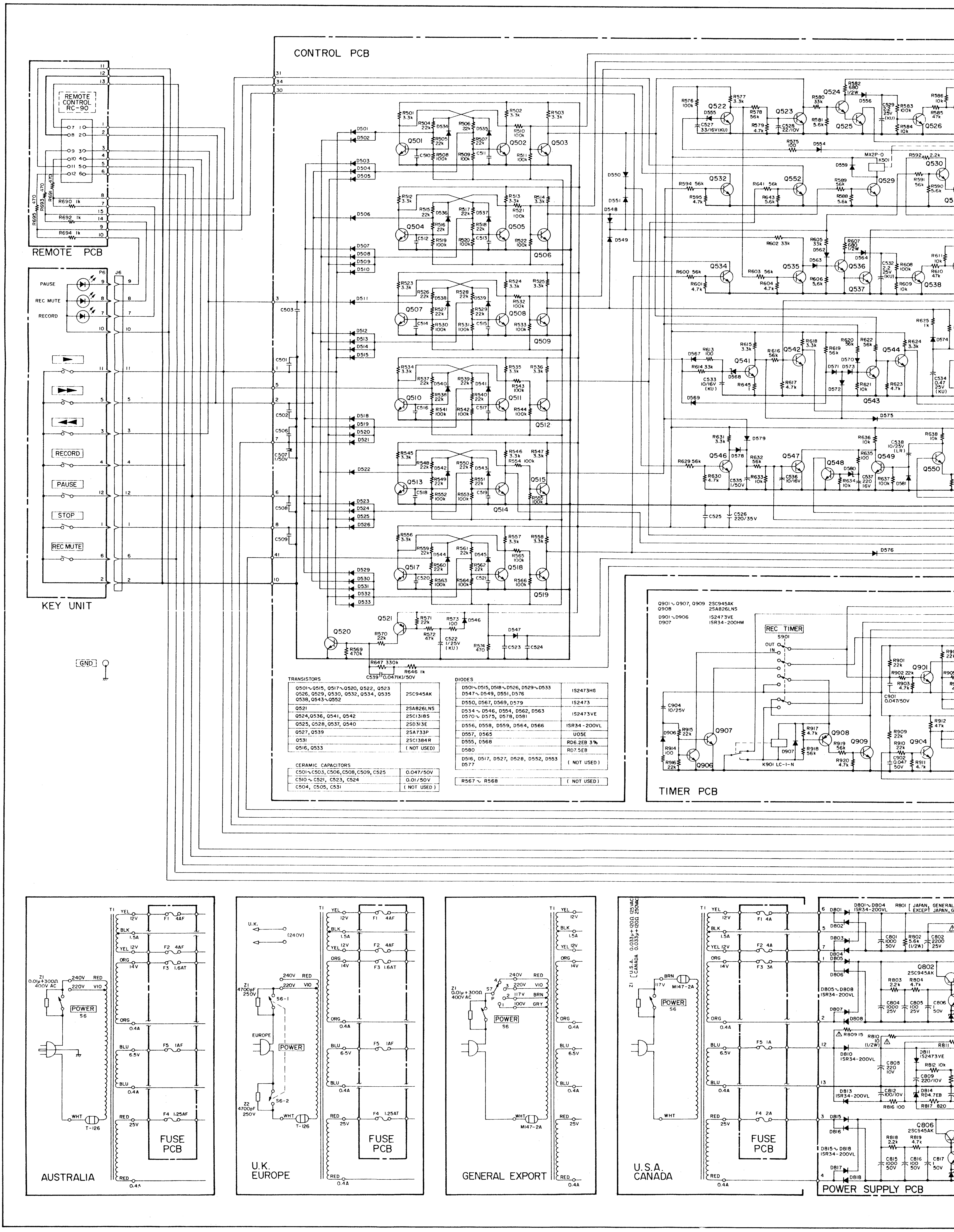


Fig. 9-1 Voltage Selector Setting

TEAC CORPORATION 3-7-3 NAKA-CHO MUSASHINO TOKYO PHONE (0422) 53-1111
TEAC CORPORATION OF AMERICA 7733 TELEGRAPH ROAD MONTEBELLO CALIFORNIA 90640 PHONE (213) 726-0303
TEAC AUSTRALIA PTY., LTD. 165-167 GLADSTONE STREET SOUTH MELBOURNE VICTORIA 3205 PHONE 699-6000

PRINTED IN JAPAN 1278KOS2.0 D-3019A


CONTROL PCB
REMOTE CONTROL RC-90
REMOTE PCB
R690 1k
R692 1k
R694 1k
R691 470
R693 470
R695 470
PAUSE
REC MUTE
RECORD
P6
J6
KEY UNIT
RECORD
PAUSE
STOP
REC MUTE
GND
Q501
Q502
Q503
Q504
Q505
Q506
Q507
Q508
Q509
Q510
Q511
Q512
Q513
Q514
Q515
Q517
Q518
Q519
Q520
Q521
Q522
Q523
Q524
Q525
Q526
Q529
Q530
Q532
Q534
Q535
Q536
Q537
Q538
Q541
Q542
Q543
Q544
Q546
Q547
Q548
Q549
Q550
Q552
MX2P-O
K501
C525
C526 220/35V
D575
D576
TIMER PCB
REC TIMER
S901
OUT
IN
Q901
Q904
Q906
Q907
Q908
Q909
K901 LC-1-N
AUSTRALIA
U.K. EUROPE
GENERAL EXPORT
U.S.A. CANADA
POWER
S6
S6-1
S6-2
S7
T1
T-126
MI47-2A
FUSE PCB
POWER SUPPLY PCB
240V
220V
117V
100V
Q802 2SC945AK
Q806 2SC545AK

Q901∿Q907, Q909 2SC945AK
Q908 2SA826LNS
D901∿D906 1S2473VE
D907 1SR34-200HM

TRANSISTORS

Q501∿Q515, Q517∿Q520, Q522, Q523 Q526, Q529, Q530, Q532, Q534, Q535 Q538, Q543∿Q552	2SC945AK
Q521	2SA826LNS
Q524, Q536, Q541, Q542	2SC1318S
Q525, Q528, Q537, Q540	2SD313E
Q527, Q539	2SA733P
Q531	2SC1384R
Q516, Q533	(NOT USED)

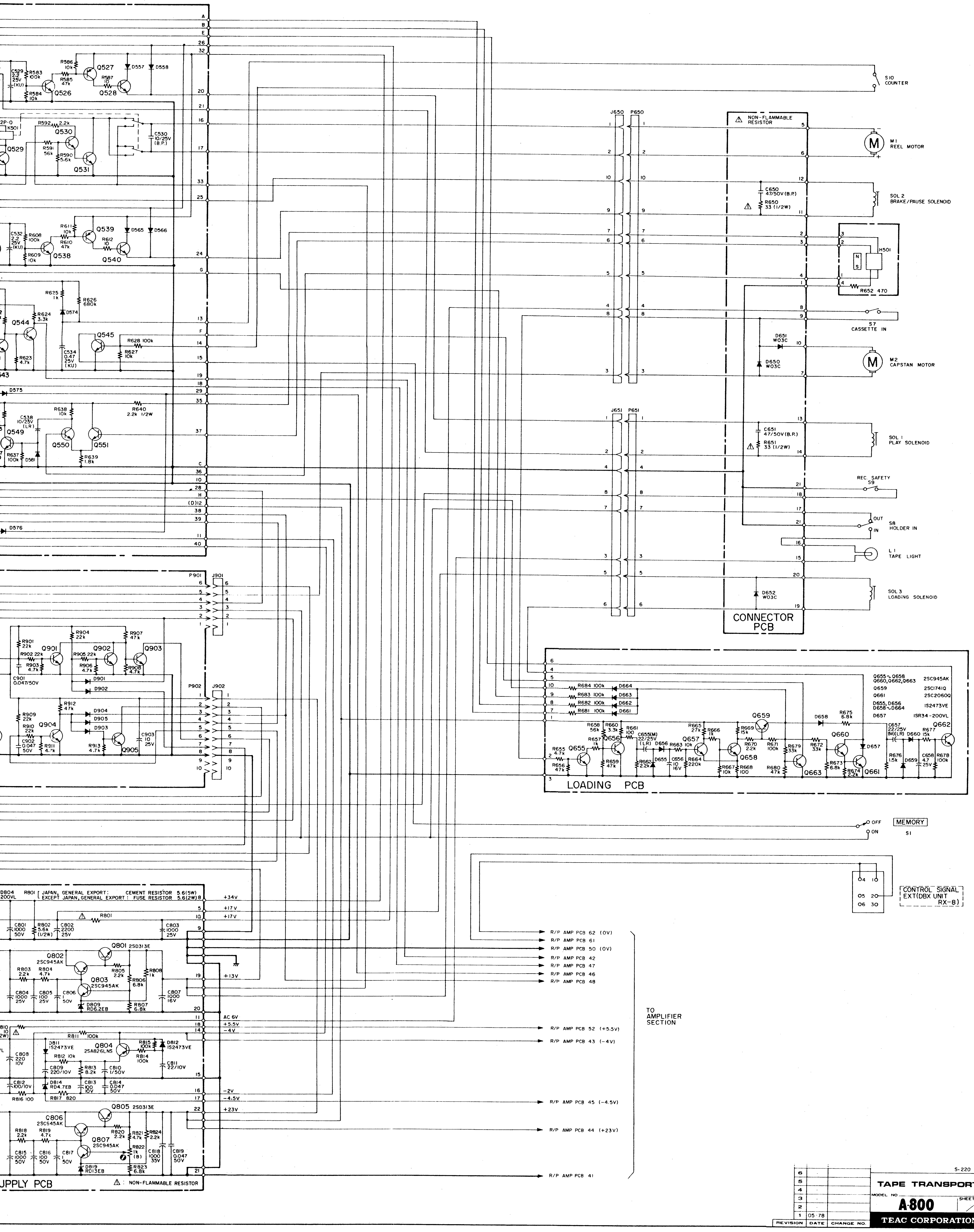
CERAMIC CAPACITORS

C501∿C503, C506, C508, C509, C525	0.047/50V
C510∿C521, C523, C524	0.01/50V
C504, C505, C531	(NOT USED)

DIODES

D501∿D515, D518∿D526, D529∿D533 D547∿D549, D551, D576	1S2473HG
D550, D567, D569, D579	1S2473
D534∿D546, D554, D562, D563 D570∿D575, D578, D581	1S2473VE
D556, D558, D559, D564, D566	1SR34-200VL
D557, D565	U05E
D555, D568	RD6.2EB 3%
D580	RD7.5EB
D516, D517, D527, D528, D552, D553 D577	(NOT USED)

R567∿R568	(NOT USED)


S10 COUNTER
J650
P650
NON-FLAMMABLE RESISTOR
M1 REEL MOTOR
C650 47/50V (B.P.)
R650 33 (1/2W)
SOL 2 BRAKE/PAUSE SOLENOID
H501
R652 470
S7 CASSETTE IN
D651 W03C
D650 W03C
M2 CAPSTAN MOTOR
J651
P651
C651 47/50V (B.P.)
R651 33 (1/2W)
SOL 1 PLAY SOLENOID
REC SAFETY S9
OUT
IN
S8 HOLDER IN
L1 TAPE LIGHT
D652 W03C
SOL 3 LOADING SOLENOID
CONNECTOR PCB
Q655~Q658, Q660, Q662, Q663 2SC945AK
Q659 2SC1741Q
Q661 2SC2060Q
D655, D656, D658~D664 1S2473VE
D657 1SR34-200VL
LOADING PCB
R684 100k
R683 100k
R682 100k
R681 100k
D664
D663
D662
D661
Q659
Q660
Q662
Q655
Q656
Q657
Q658
Q661
Q663
OFF
ON
MEMORY
S1
CONTROL SIGNAL EXT (DBX UNIT RX-8)
P901
J901
P902
J902
Q901
Q902
Q903
Q904
Q905
D901
D902
D903
D904
D905
Q526
Q527
Q528
Q529
Q530
Q531
Q538
Q539
Q540
Q544
Q545
Q549
Q550
Q551
D575
D576
JAPAN, GENERAL EXPORT: CEMENT RESISTOR 5.6(5W)
EXCEPT JAPAN, GENERAL EXPORT: FUSE RESISTOR 5.6(2W)
+34V
+17V
+17V
Q801 2SD313E
Q802 2SC945AK
Q803 2SC945AK
D809 RD6.2EB
+13V
AC 6V
+5.5V
-4V
Q804 2SA826LNS
D811 1S2473VE
D812 1S2473VE
D814 RD4.7EB
-2V
-4.5V
+23V
Q805 2SD313E
Q806 2SC945AK
Q807 2SC945AK
D819 RD13EB
R/P AMP PCB 62 (0V)
R/P AMP PCB 61
R/P AMP PCB 50 (0V)
R/P AMP PCB 42
R/P AMP PCB 47
R/P AMP PCB 46
R/P AMP PCB 48
TO AMPLIFIER SECTION
R/P AMP PCB 52 (+5.5V)
R/P AMP PCB 43 (-4V)
R/P AMP PCB 45 (-4.5V)
R/P AMP PCB 44 (+23V)
R/P AMP PCB 41
UPPLY PCB
⚠ : NON-FLAMMABLE RESISTOR

S-220

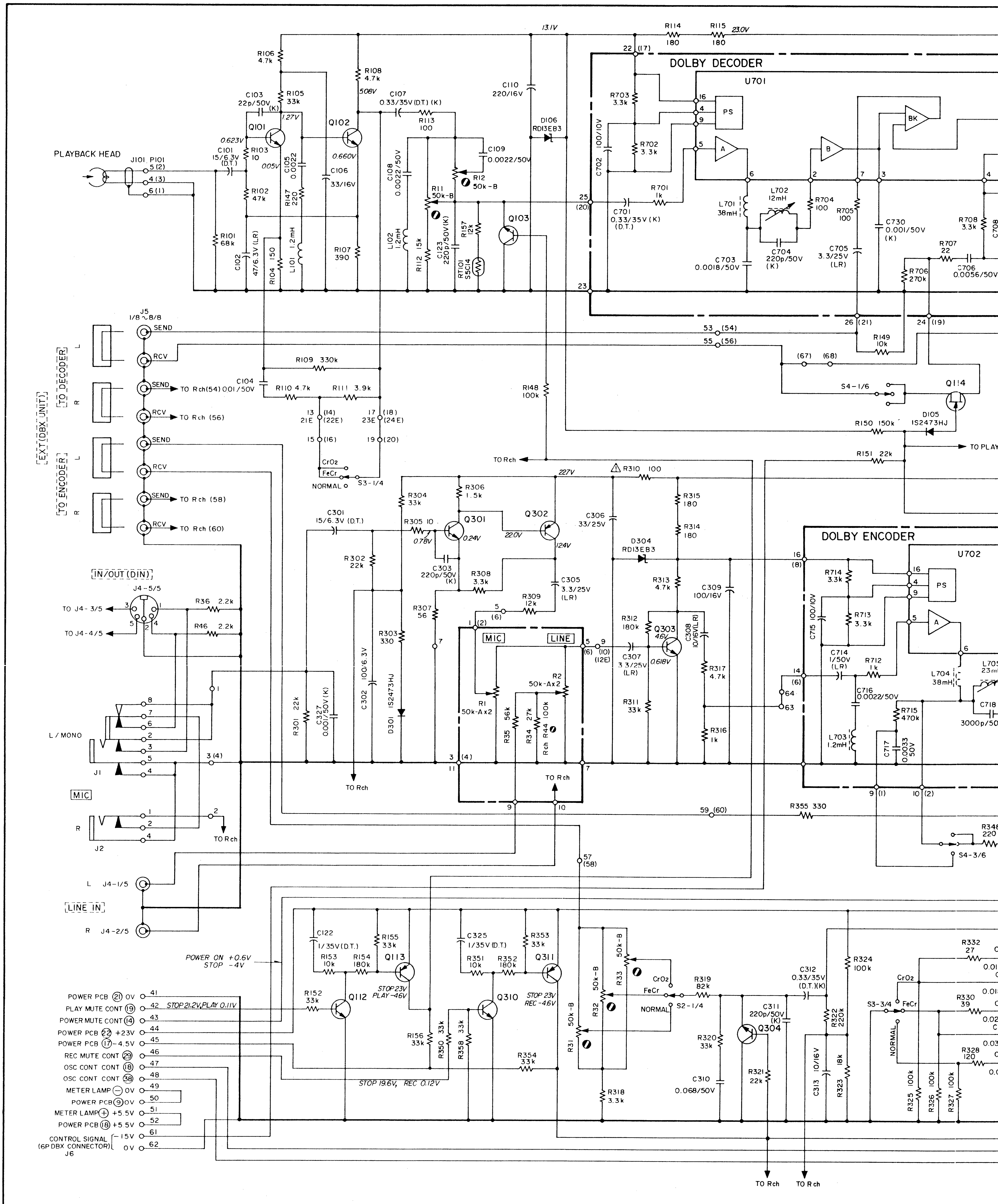
REVISION	DATE	CHANGE NO.
6		
5		
4		
3		
2		
1	05-78	

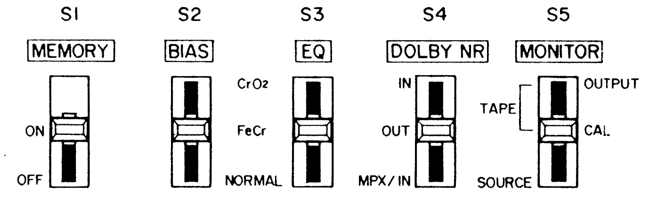
TAPE TRANSPORT

MODEL NO. **A-800**

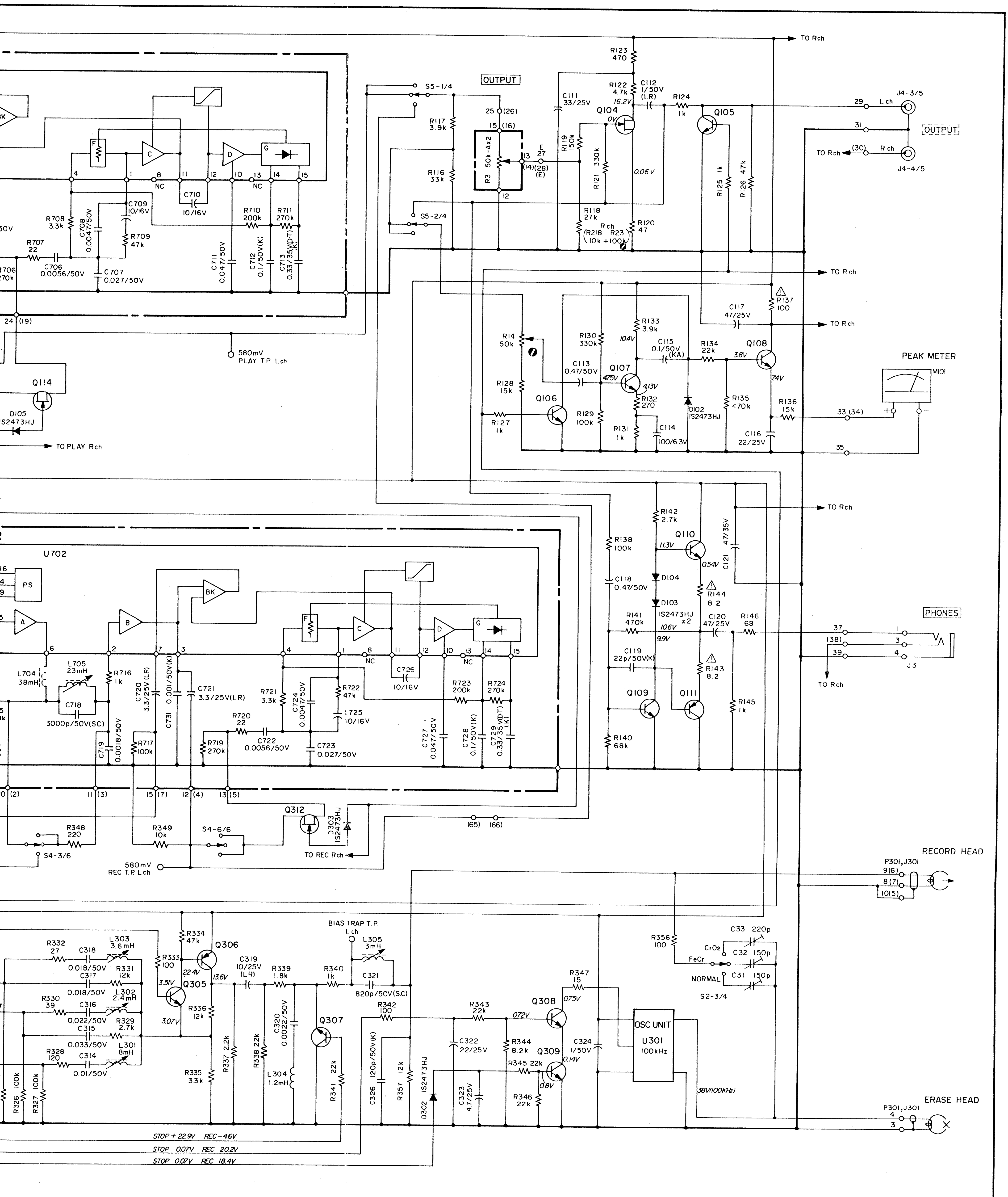
SHEET NO.

TEAC CORPORATION


PLAYBACK HEAD
J101 P101
5 (2)
4 (3)
6 (1)
13.1V
R114 180
R115 180
23.0V
R106 4.7k
R108 4.7k
5.06V
C103 22p/50V (K)
R105 33k
1.27V
Q101
Q102
C107 0.33/35V(D.T.) (K)
R113 100
C110 220/16V
D106 RD13EB3
0.623V
C101 15/6.3V (D.T.)
R103 10
0.05V
C105 0.0022
0.660V
C106 33/16V
C109 0.0022/50V
C108 0.0022/50V
R11 50k-B
R12 50k-B
R102 47k
R147 220
R101 68k
C102 47/6.3V (LR)
R104 150
L101 1.2mH
R107 390
L102 1.2mH
R112 15k
C123 220p/50V(K)
R157 12k
RT101 S5C14
Q103
DOLBY DECODER
U701
22 (17)
R703 3.3k
C702 100/10V
R702 3.3k
PS
A
B
BK
16
4
9
5
6
2
7
3
25 (20)
C701 0.33/35V (K) (D.T.)
R701 1k
L701 38mH
L702 12mH
R704 100
R705 100
C730 0.001/50V (K)
R708 3.3k
C708
R707 22
C706 0.0056/50V
R706 270k
C704 220p/50V (K)
C703 0.0018/50V
C705 3.3/25V (LR)
23
26 (21)
24 (19)
J5 1/8～8/8
SEND
RCV
TO DECODER
TO ENCODER
EXT(DBX UNIT)
L
R
TO Rch (54)
TO Rch (56)
TO Rch (58)
TO Rch (60)
53 (54)
55 (56)
R149 10k
(67) (68)
S4-1/6
Q114
D105 1S2473HJ
R150 150k
R151 22k
TO PLAY
R109 330k
C104 0.01/50V
R110 4.7k
R111 3.9k
13 (14) 21E (22E)
17 (18) 23E (24E)
15 (16)
19 (20)
CrO2
FeCr
NORMAL
S3-1/4
R148 100k
TO Rch
R310 100
2.27V
R304 33k
R306 1.5k
Q301
Q302
C306 33/25V
R315 180
R314 180
C301 15/6.3V (D.T.)
R305 10
0.78V
0.24V
2.20V
1.24V
C303 220p/50V (K)
R308 3.3k
C305 3.3/25V (LR)
D304 RD13EB3
R302 22k
R309 12k
R313 4.7k
C309 100/16V
R307 56
R303 330
C302 100/6.3V
D301 1S2473HJ
R301 22k
C327 0.001/50V (K)
MIC
LINE
R1 50k-Ax2
R2 50k-Ax2
R35 56k
R34 27k
R44 100k
Rch
R312 180k
Q303
4.6V
0.618V
C308 10/16V(LR)
C307 3.3/25V (LR)
R317 4.7k
R311 33k
R316 1k
IN/OUT (DIN)
J4-5/5
R36 2.2k
R46 2.2k
TO J4-3/5
TO J4-4/5
L/MONO
J1
MIC
J2
TO Rch
L J4-1/5
LINE IN
R J4-2/5
57 (58)
59 (60)
R355 330
DOLBY ENCODER
U702
16 (8)
R714 3.3k
C715 100/10V
R713 3.3k
14 (6)
64
63
C714 1/50V (LR)
R712 1k
C716 0.0022/50V
L704 38mH
L705 23mH
R715 470k
C718
3000p/50V
L703 1.2mH
C717 0.0033 50V
9 (1)
10 (2)
R348 220
S4-3/6
C122 1/35V (D.T.)
R155 33k
R153 10k
R154 180k
Q113
C325 1/35V (D.T.)
R353 33k
R351 10k
R352 180k
Q311
POWER ON +0.6V STOP -4V
R152 33k
Q112
STOP 23V PLAY -4.6V
Q310
STOP 23V REC -4.6V
R156 33k
R350 33k
R358 33k
R354 33k
STOP 19.6V, REC 0.12V
R33 50k-B
R32 50k-B
R31 50k-B
R318 3.3k
CrO2
FeCr
NORMAL
S2-1/4
R319 82k
C312 0.33/35V (D.T.)(K)
R324 100k
C311 220p/50V (K)
Q304
R320 33k
C310 0.068/50V
R321 22k
C313 10/16V
R322 220k
R323 18k
S3-3/4
R332 27
R330 39
R328 120
R325 100k
R326 100k
R327 100k
POWER PCB ㉑ 0V 41
PLAY MUTE CONT ⑲ 42 STOP 21.2V, PLAY 0.11V
POWER MUTE CONT ⑭ 43
POWER PCB ㉒ +23V 44
POWER PCB ⑰ -4.5V 45
REC MUTE CONT ㉙ 46
OSC CONT CONT ⑱ 47
OSC CONT CONT ㊳ 48
METER LAMP ⊖ 0V 49
POWER PCB ⑨ 0V 50
METER LAMP ⊕ +5.5V 51
POWER PCB ⑱ +5.5V 52
CONTROL SIGNAL -15V 61
(6P DBX CONNECTOR) 0V 62
J6
TO Rch
TO Rch


S1
S2
S3
S4
S5
MEMORY
BIAS
EQ
DOLBY NR
MONITOR
ON
OFF
CrO2
FeCr
NORMAL
IN
OUT
MPX/IN
TAPE
OUTPUT
CAL
SOURCE

REF. NO.	DESCRIPTION	REF. NO.	DESCRIPTION	REF. NO.	DESCRIPTION
Q101/Q201	2SC1844(F)	Q111/Q211	2SA854(Q)	Q307/Q407	2SC2409(R,S)
Q102/Q202	2SC1222(E)	Q112	2SC1740LN(S)	Q308	2SC1741(Q)
Q103/Q203	2SC1740LN(S)	Q113	2SA826LN(S)	Q309	2SC1741(Q)
Q104/Q204	2SK44(D)	Q114/Q214	2SK68A(M)	Q310	2SC1740LN(S)
Q105/Q205	2SC1740LN(S)	Q301/Q401	2SC1844(F)	Q311	2SA826LN(S)
Q106/Q206	2SC1740LN(S)	Q302/Q402	2SA826LN(S)	Q312/Q412	2SK68A (M)
Q107/Q207	2SC1740LN(S)	Q303/Q403	2SC1740LN(S)		
Q108/Q208	2SC1637(I)	Q304/Q404	2SC1740LN(S)	U301	OSC UNIT
Q109/Q209	2SC1740LN(S)	Q305/Q405	2SC1740LN(S)	U701/U751	NE645B
Q110/Q210	2SC1741(Q)	Q306/Q406	2SA608(F)	U702/U752	NE645B


TO Rch
R123 470
R122 4.7k
C112 1/50V (LR)
C111 33/25V
Q104
R124 1k
Q105
J4-3/5
29 Lch
31
OUTPUT
TO Rch (30) Rch
J4-4/5
S5-1/4
OUTPUT
25 (26)
15 (16)
R117 3.9k
R3 50k-Ax2
13 E 27 (14)(28) (E)
12
R116 33k
R119 150k
R121 330k
0.06V
R125 1k
R126 47k
S5-2/4
R118 27k
R120 47
Rch (R218 10k +100k) R23
TO Rch
TO Rch
R137 100
C117 47/25V
R14 50k
R130 330k
R133 3.9k
104V
C115 0.1/50V (KA)
R134 22k
Q108
3.8V
PEAK METER
M101
R128 15k
C113 0.47/50V
Q107
4.75V
4.13V
R132 270
Q106
R129 100k
D102 1S2473HJ
R135 470k
R136 15k
33 (34)
R127 1k
R131 1k
C114 100/6.3V
C116 22/25V
35
580mV PLAY T.P. Lch
Q114
D105 1S2473HJ
TO PLAY Rch
24 (19)
R708 3.3k
C708 0.0047/50V
C709 10/16V
R709 47k
R707 22
C706 0.0056/50V
C707 0.027/50V
C710 10/16V
R710 200k
R711 270k
C711 0.047/50V
C712 0.1/50V(K)
C713 0.33/35V(DT)(K)
TO Rch
R142 2.7k
Q110
11.3V
0.54V
C121 47/35V
R138 100k
C118 0.47/50V
D104
D103 1S2473HJ x2
R144 8.2
R141 470k
106V
C120 47/25V
R146 68
PHONES
37
(38)
39
J3
TO Rch
9.9V
C119 22p/50V(K)
R143 8.2
Q109
Q111
R145 1k
R140 68k
U702
PS
A
B
BK
C
D
G
L705 23mH
L704 38mH
R716 1k
C718 3000p/50V(SC)
C720 3.3/25V (LF)
C731 0.001/50V(K)
C721 3.3/25V(LR)
R721 3.3k
C724 0.0047/50V
R722 47k
C725 10/16V
C726 10/16V
R723 200k
R724 270k
C727 0.047/50V
C728 0.1/50V(K)
C729 0.33/35V(DT)(K)
R720 22
C722 0.0056/50V
C723 0.027/50V
C719 0.0018/50V
R717 100k
R719 270k
11 (3)
15 (7)
12 (4)
13 (5)
Q312
D303 1S2473HJ
(65) (66)
R348 220
S4-3/6
R349 10k
S4-6/6
580mV REC T.P Lch
TO REC Rch
RECORD HEAD
P301, J301
9 (6)
8 (7)
10 (5)
R332 27
C318 0.018/50V
L303 3.6mH
R331 12k
C317 0.018/50V
R330 39
C316 0.022/50V
L302 2.4mH
R329 2.7k
C315 0.033/50V
R328 120
C314 0.01/50V
L301 8mH
R326 100k
R327 100k
R334 47k
R333 100
Q306
Q305
22.4V
13.6V
3.51V
3.07V
R336 12k
R335 3.3k
R337 2.2k
C319 10/25V (LR)
R339 1.8k
R338 22k
C320 0.0022/50V
L304 1.2mH
Q307
R341 22k
BIAS TRAP T.P. Lch
L305 3mH
R340 1k
C321 820p/50V(SC)
R342 100
C326 120p/50V(K)
R357 12k
D302 1S2473HJ
C322 22/25V
C323 4.7/25V
R343 22k
0.72V
R344 8.2k
R345 22k
R346 22k
Q308
0.75V
Q309
0.14V
0.8V
R347 15
C324 1/50V
OSC UNIT U301 100kHz
38V(100KHz)
R356 100
C33 220p
CrO2
C32 150p
FeCr
NORMAL
C31 150p
S2-3/4
ERASE HEAD
P301, J301
4
3
STOP +22.9V REC -4.6V
STOP 0.07V REC 20.2V
STOP 0.07V REC 18.4V

	DESCRIPTION
7	2SC2409(R,S)
	2SC1741(Q)
	2SC1741(Q)
	2SC1740LN(S)
	2SA626LN(S)
2	2SK68A (M)
	OSC UNIT
	NE645B
2	NE645B

NOTE
⚠ : NON-FLAMMABLE RESISTOR

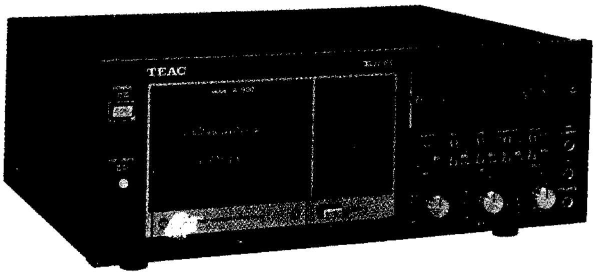
S-221

REVISION	DATE	CHANGE NO.
6	·	
5	·	
4	·	
3	·	
2	·	
1	05·78	

AMPLIFIER
MODEL NO. **A-800**
SHEET NO /
TEAC CORPORATION

TEAC®

PARTS LIST



A-800

Stereo Cassette Deck with Dolby System

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- 2-3. CONTROL PCB ASSY (LOADING) 14, 19
- 2-4. DOLBY PCB ASSY 14, 20
- 2-5. POWER SUPPLY PCB ASSY 15, 20
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INCLUDED ACCESSORIES 22

ASSEMBLING HARDWARE CODING LIST 23

PARTS ORDERING INFORMATION

Spare parts are available through your nearest TEAC Authorized Service Center or directly from the TEAC office, the address of which is written on the back cover. When ordering parts, always include the following information:

1. MODEL
2. REF. NO.
3. PARTS NO.
4. DESCRIPTION
5. UNIT SERIAL NO.
6. MANUAL CODE NO.

NOTICE REGARDING PARTS ORDERS

1. Do not order by REF. NO. only.
2. In some instances, individual minor parts are not available. In such a case, the entire assembly including the part requested will be sent to you.
3. Parts are identical between the different models with the exceptions as coded by the designations in the REMARKS column.
4. PC Boards shown viewed from foil side.
5. Parts marked with *require longer delivery time than regular parts.
6. The ff-80 is Japan Domestic model of the A-800.

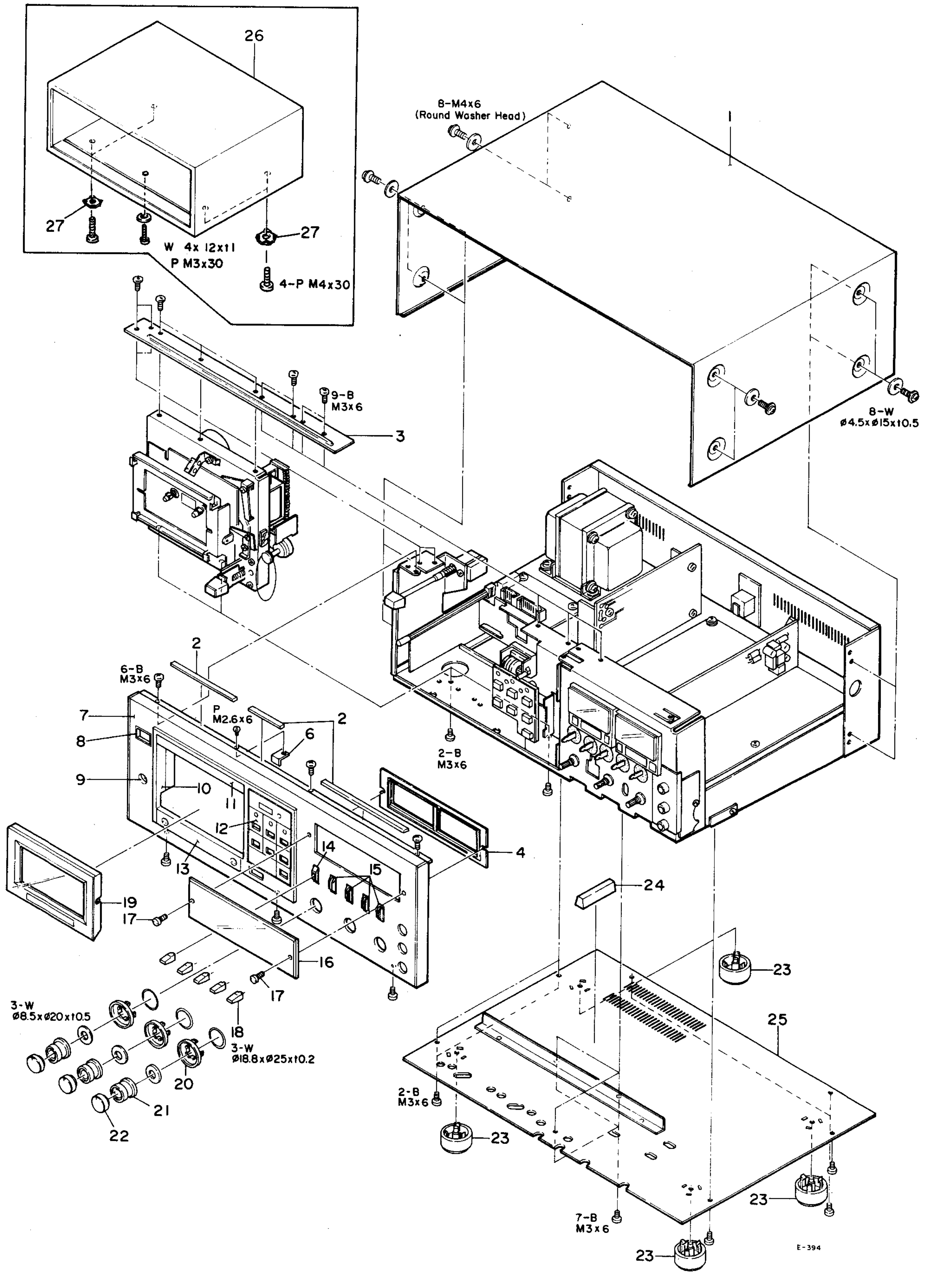
TEAC CORPORATION

Effective: Aug. 1978 FE-025

51032400

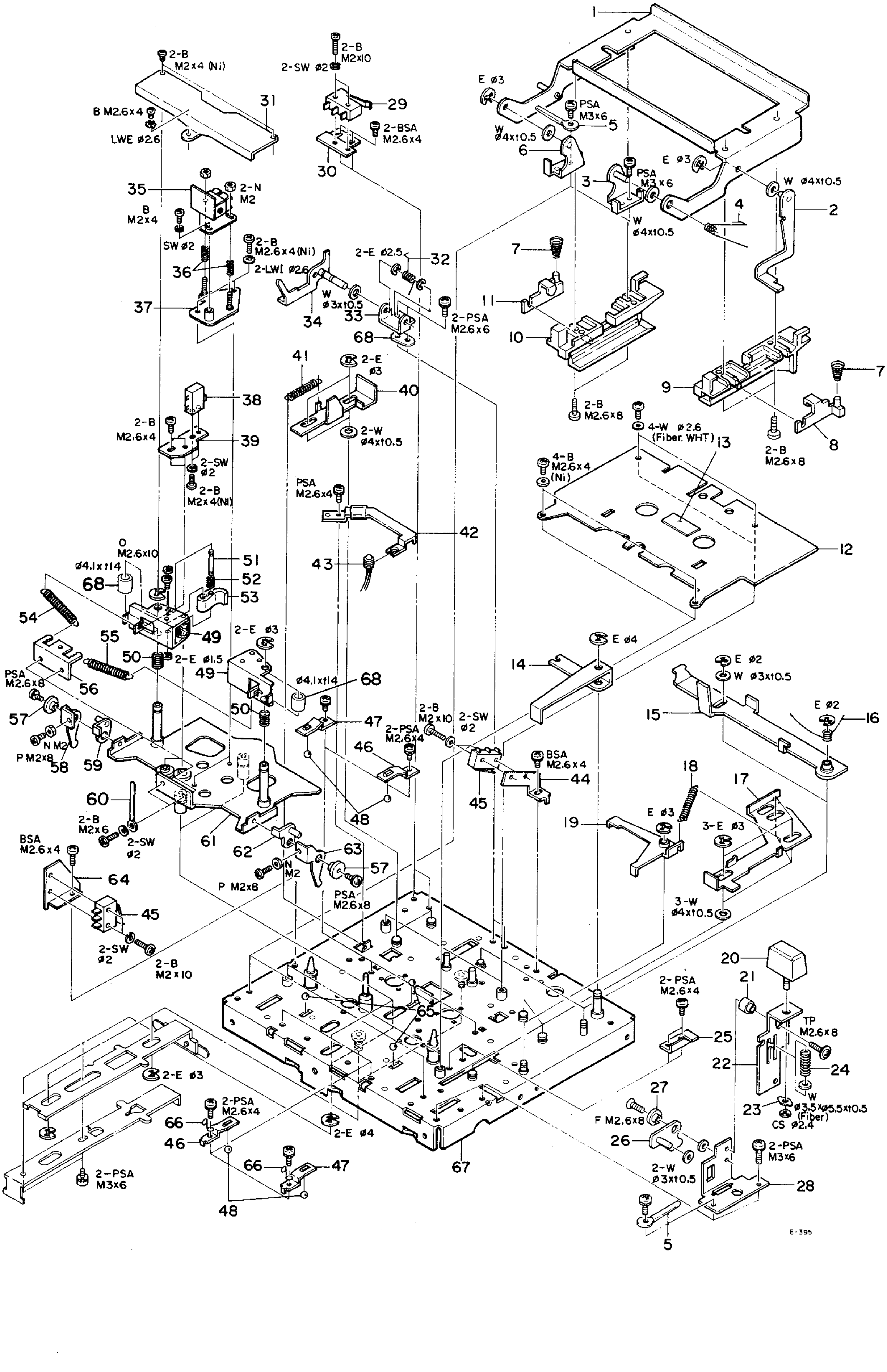
1. EXPLODED VIEWS AND PARTS LIST

EXPLODED VIEW-1


26
27
27
W 4x 12xt1
P M3x30
4-P M4x30
8-M4x6
(Round Washer Head)
1
9-B
M3x6
3
8-W
ø4.5xø15xt0.5
2
6-B
M3x6
P
M2.6x6
2
6
7
8
9
10
11
12
2-B
M3x6
13
14
15
4
19
17
24
16
17
23
3-W
ø8.5xø20xt0.5
18
3-W
ø18.8xø25xt0.2
20
21
22
25
2-B
M3x6
23
7-B
M3x6
23
23
E-394

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
1 - 1	*55522601	Cover, Top	
	*55523600	Cover, Top	LIMITED AREAS
1 - 2	*55555801	Cushion, Top Cover; L	
1 - 3	*55532220	Bracket, Chassis; B	
1 - 4	*55331191	Escutcheon, Meter	
1 - 5		(Not used)	
1 - 6	*55552690	Plate, Escutcheon	
1 - 7	*55031620	Panel Assy, Front	
1 - 8	*55344860	Escutcheon, Power Switch	
1 - 9	*55344891	Escutcheon, Timer Switch	
1 - 10	*55031600	Escutcheon Assy, Cassette	
1 - 11	*55554660	Plate, Name; A	JAPAN
	*55554670	Plate, Name; B	All except JAPAN
1 - 12	*55331281	Panel, Control	
1 - 13	*55331540	Cover, Head	
1 - 14	*55345640	Escutcheon, Lever Switch	
1 - 15	*55345630	Escutcheon, Lever Switch; D	
1 - 16	*55344850	Cover, Meter	
1 - 17	*55447290	Screw, Trim	
1 - 18	55331200	Knob, Lever Switch	
1 - 19	55046251	Cover Assy, Cassette	
1 - 20	55344531	Marked Knob, B	
1 - 21	55045331	Knob, VR; B	
1 - 22	55447270	Knob, VR; A	
1 - 23	55031470	Foot	
1 - 24	*55345940	Cushion, Rubber	
1 - 25	*55031710	Cover Assy, Bottom	
	*55031800	Cover Assy, Bottom	LIMITED AREAS
1 - 26	*55022130	Cabinet Assy	LIMITED AREAS
1 - 27	*55555260	Washer	LIMITED AREAS

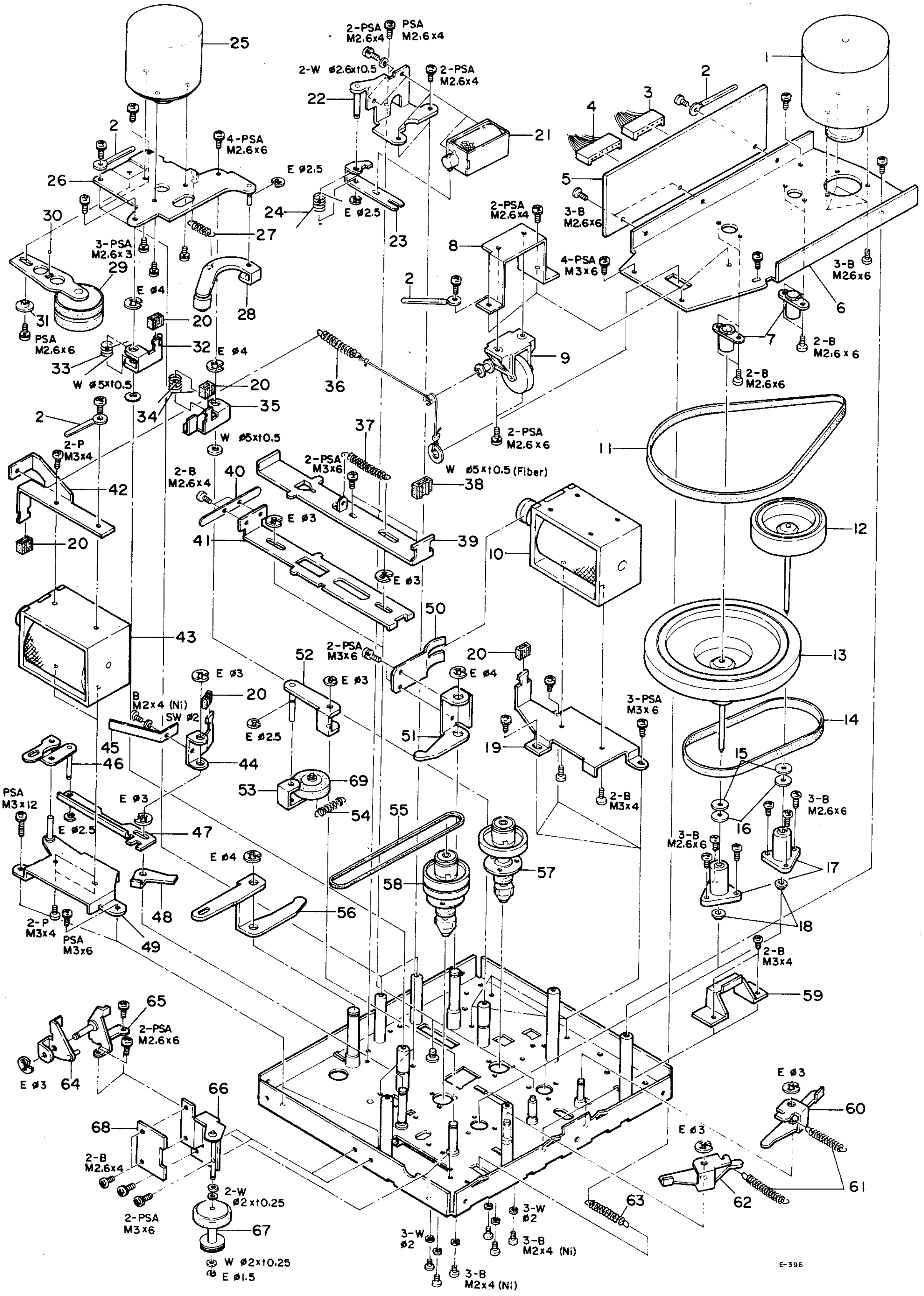
EXPLODED VIEW-2


1
2-B
M2x4 (Ni)
2-B
M2x10
2-SW ø2
31
29
B M2.6x4
LWE ø2.6
2-BSA
M2.6x4
30
E ø3
PSA
M3x6
5
W
ø4xt0.5
6
E ø3
3
PSA
M3x6
W ø4xt0.5
2
4
W
ø4xt0.5
35
2-N
M2
B
M2x4
SW ø2
2-B
M2.6x4(Ni)
36
2-LWI ø2.6
2-E ø2.5
32
7
11
37
34
W
ø3xt0.5
33
2-PSA
M2.6x6
68
10
41
2-E
ø3
40
7
9
38
2-B
M2.6x4
39
2-SW
ø2
2-B
M2x4(Ni)
2-W
ø4xt0.5
2-B
M2.6x8
4-W ø2.6
(Fiber. WHT)
13
2-B
M2.6x8
8
4-B
M2.6x4
(Ni)
PSA
M2.6x4
42
O
M2.6x10
ø4.1xt14
51
52
68
53
43
12
54
49
55
2-E ø3
50
2-E ø1.5
49
E ø4
14
E ø2
W ø3xt0.5
PSA
M2.6x8
56
ø4.1xt14
68
57
50
15
E ø2
16
47
2-B
M2x10
2-SW
ø2
2-PSA
M2.6x4
N M2
P M2x8
58
59
46
BSA
M2.6x4
44
45
18
17
60
2-B
M2x6
2-SW
ø2
48
E ø3
19
3-E ø3
61
62
63
57
BSA
M2.6x4
64
P M2x8
N
M2
PSA
M2.6x8
3-W
ø4xt0.5
45
2-SW
ø2
2-B
M2x10
20
21
2-PSA
M2.6x4
TP
M2.6x8
65
25
24
22
2-E ø3
27
23
W
ø3.5xø5.5xt0.5
(Fiber)
CS ø2.4
66
2-PSA
M2.6x4
F M2.6x8
46
26
2-E ø4
2-PSA
M3x6
66
47
2-W
ø3xt0.5
67
28
2-PSA
M3x6
48
5
E-395

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
2 - 1	*55046160	Holder Assy, Cassette	
2 - 2	*55046151	Lever Assy, Lock	
2 - 3	*55046130	Bracket Assy, Holder; R	
2 - 4	*55241490	Spring, Cassette Up	
2 - 5	*55810380	Clamper, Cord; A	
2 - 6	*55046140	Bracket Assy, Holder; L	
2 - 7	*55241280	Spring, Cassette Pressure	
2 - 8	*55344820	Lever, Cassette Pressure; R	
2 - 9	55331243	Guide, Cassette; R	
2 - 10	55331233	Guide, Cassette; L	
2 - 11	*55344810	Lever, Cassette Pressure; L	
2 - 12	*55554620	Plate, Cassette Holder	
2 - 13	*55345780	Prism, Lamp	
2 - 14	*55554510	Arm, Eject Preventing; 2	
2 - 15	*55045420	Lever Assy, Cassette Pressure	
2 - 16	*55203690	Spring, Cassette Pressure	
2 - 17	*55554340	Lever, Eject	
2 - 18	*55240590	Spring, Arm Assy	
2 - 19	*55045370	Arm Assy, Eject Preventing	
2 - 20	55331250	Button, Eject	
2 - 21	*55447390	Collar, Slide Plate	
2 - 22	*55552341	Plate, Slide; Eject	
2 - 23	*55553520	Washer, Wave	
2 - 24	*55241250	Spring, Slide Plate	
2 - 25	*55552331	Plate, Lock	
2 - 26	*55045360	Arm Assy, Eject	
2 - 27	*55447320	Collar, Eject Arm	
2 - 28	*55552360	Bracket, Eject Arm	
2 - 29	51300030	Switch, Micro	
2 - 30	*55552460	Bracket, Micro Switch; A	
2 - 31	*55554390	Plate, Trim	
2 - 32	*55241270	Spring, Arm Assy	
2 - 33	*55552450	Bracket, Arm Assy	
2 - 34	*55045380	Arm Assy, Pressure Lever Lock	
2 - 35	55696060	Head, REC/PLAY; Dual Gap	
2 - 36	55241410	Spring, Head Adjust	
2 - 37	*55046310	Bracket Assy, Head	
2 - 38	55696050	Head, Erase	
2 - 39	*55554400	Bracket, Erase Head	
2 - 40	*55554800	Lever, Record Preventing	
2 - 41	*55240620	Spring, Preventing Lever	
2 - 42	*55554370	Bracket, Lamp	
2 - 43	51420890	Lamp	
2 - 44	*55554330	Bracket, Micro Switch	
2 - 45	50446320	Switch, Micro	
2 - 46	*55500050	Plate Spring, R	
2 - 47	*55500040	Plate Spring, L	
2 - 48	55400550	Steel Ball, $\phi 2$	
2 - 49	55046361	Pinch Roller Assy	
2 - 50	55241560	Spring, Pinch Roller Arm	
2 - 51	55448540	Shaft, Pinch Roller	
2 - 52	55241550	Spring, Pinch Roller Guide	
2 - 53	55345670	Guide, Pinch Roller; S	
2 - 54	55242110	Spring, Pinch Roller; 2	
2 - 55	55241520	Spring, Pinch Roller; 1	
2 - 56	*55554570	Bracket, Spring	
2 - 57	*55449020	Collar, Lever	
2 - 58	*55554750	Sub-Lever, Pause; L	
2 - 59	*55046350	Lever Assy, Pause; L	
2 - 60	*50831921	Clamper, Head Lead	
2 - 61	*55031590	Plate Assy, Head Base	
2 - 62	*55046340	Lever Assy, Pause; R	
2 - 63	*55554760	Sub-Lever, Pause; R	

(Continued on Page. 22)

EXPLODED VIEW-3

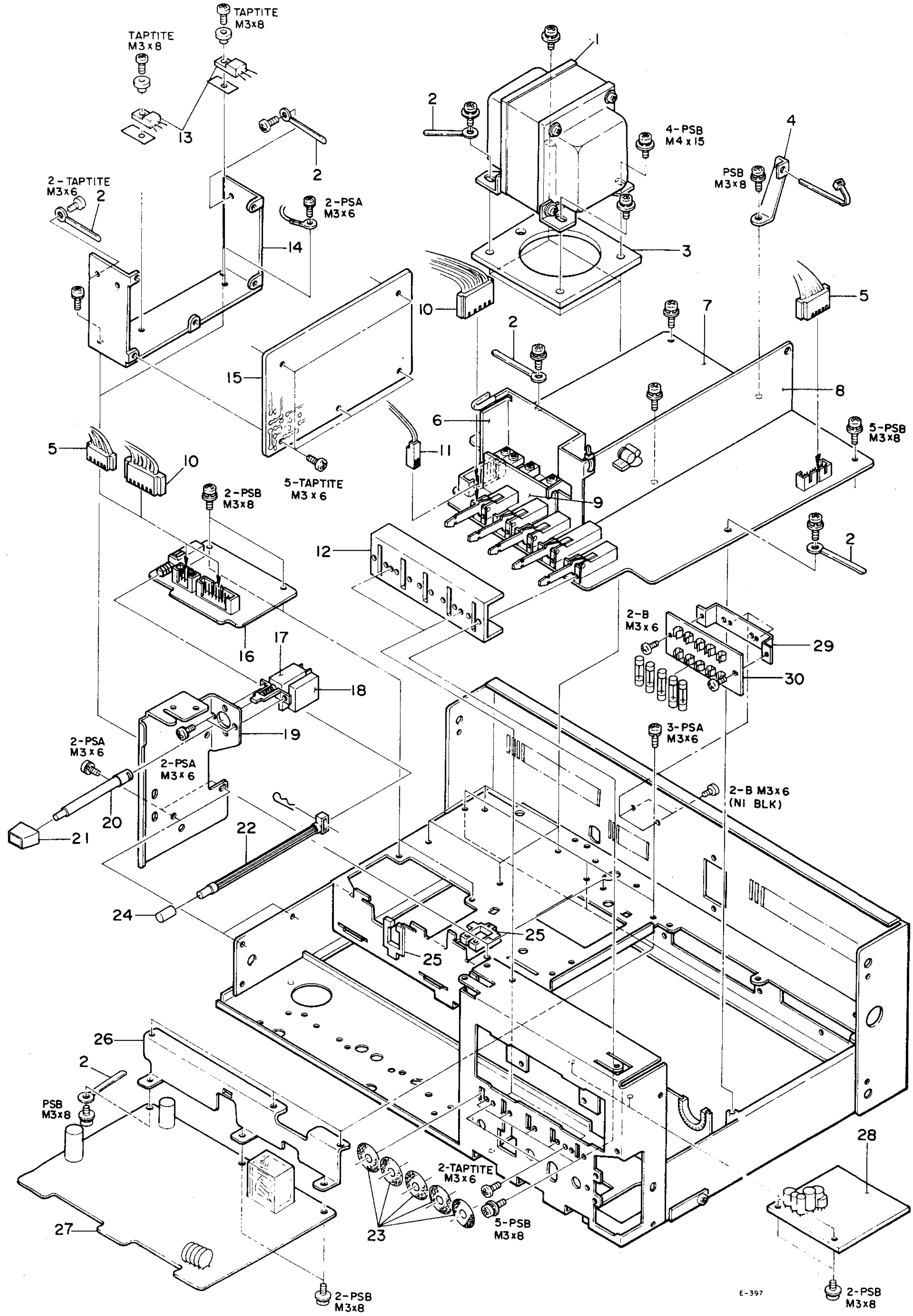


25
2-PSA M2.6x4
PSA M2.6x4
2-W ø2.6xt0.5
2-PSA M2.6x4
22
21
1
2
3
4
5
3-B M2.6x6
2
4-PSA M2.6x6
26
E ø2.5
24
E ø2.5
23
30
27
3-PSA M2.6x3
29
28
8
2-PSA M2.6x4
4-PSA M3x6
2
3-B M2.6x6
6
31
E ø4
20
PSA M2.6x6
32
E ø4
33
W ø5xt0.5
20
34
35
36
9
7
2-B M2.6x6
2-B M2.6x6
2
2-P M3x4
W ø5xt0.5
37
2-PSA M3x6
2-PSA M2.6x6
11
42
2-B M2.6x4
40
W ø5xt0.5 (Fiber)
38
20
E ø3
41
39
12
10
E ø3
50
43
2-PSA M3x6
20
E ø4
13
52
E ø3
E ø3
B M2x4 (Ni)
SW ø2
20
E ø2.5
51
19
3-PSA M3x6
14
45
44
15
46
53
69
2-B M3x4
PSA M3x12
E ø3
54
55
3-B M2.6x6
16
E ø2.5
47
3-B M2.6x6
E ø4
58
57
17
48
56
18
2-P M3x4
PSA M3x6
49
2-B M3x4
59
65
2-PSA M2.6x6
64
E ø3
66
68
60
E ø3
2-B M2.6x4
E ø3
2-W ø2xt0.25
61
2-PSA M3x6
67
63
62
3-W ø2
3-W ø2
3-B M2x4 (Ni)
W ø2xt0.25
E ø1.5
3-B M2x4 (Ni)
E-396

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
3 - 1	71051310	Motor Assy, Capstan	
3 - 2	*55810380	Clamper, Cord; A	
3 - 3	*51221700	Connector, Socket; 8P	
3 - 4	*51221720	Connector, Socket; 10P	
3 - 5	*51687300	PCB Assy, CONNECTOR	
	*51677300	PCB	Part of 3 - 5
	*51221340	Connector, Plug; 10P	Part of 3 - 5 (J650)
	*51221320	Connector, Plug; 8P	Part of 3 - 5 (J651)
	*51430890	Diode, W03C	Part of 3 - 5 (D650~D652)
	*51819860	Resistor, Non Flammable; 33 ohm ½W 5%	Part of 3 - 5 (R650, R651)
	*50559490	Capacitor, Bi-polar; 47 mfd 50V	
3 - 6	*55532520	Bracket, Motor	
3 - 7	*55046480	Flywheel Bearing	
3 - 8	*55552380	Holder, Damper	
3 - 9	*55044940	Damper Assy, B	
3 - 10	51630200	Solenoid, A	
3 - 11	55345760	Belt, Motor	
3 - 12	55046220	Capstan Assy, S	
3 - 13	55046230	Capstan Assy, T	
3 - 14	55345751	Belt, Capstan	
3 - 15	*55500310	Washer, Thrust	
3 - 16	*55554410	Washer, Thrust; A	
3 - 17	55046210	Holder Assy, Capstan	
3 - 18	*55346370	Washer, Oil Retaining	
3 - 19	*55547730	Bracket, Solenoid; A	
3 - 20	55341160	Shoe, Brake	
3 - 21	51630360	Solenoid, C	
3 - 22	*55046180	Bracket Assy, Solenoid C	
3 - 23	*55554470	Sub-Arm, Brake	
3 - 24	*55241480	Spring, Sub-Arm	
3 - 25	71051150	Motor Assy, Fast Wind	
3 - 26	*55043520	Plate Assy, Motor Base	
3 - 27	*55240321	Spring, Tension Arm	
3 - 28	55043020	Arm Assy, Tension	
3 - 29	55042850	Idler Assy, Fast Wind	
3 - 30	*55400550	Steel Ball, ϕ2	
3 - 31	*55444510	Spacer, Idler Assy	
3 - 32	*55554590	Arm, Brake; R	
3 - 33	*55241500	Spring, Brake; R	
3 - 34	*55241510	Spring, Brake; L	
3 - 35	*55554580	Arm, Brake; L	
3 - 36	55241620	Spring, Damper	
3 - 37	*55241530	Spring, Play Lever; S	
3 - 38	*55342590	Cushion	
3 - 39	*55554520	Lever, Play	
3 - 40	*55554380	Spring, Leaf; B	
3 - 41	*55554530	Lever, Pause; A	
3 - 42	*55554350	Stopper	
3 - 43	51630350	Solenoid, B	
3 - 44	*55554420	Arm, Brake; S	
3 - 45	*55554480	Spring, Leaf; A	
3 - 46	*55046190	Arm Assy, Pause	
3 - 47	*55554430	Lever, A	
3 - 48	*55554440	Arm, Pause; 2	
3 - 49	*55046200	Bracket Assy, Solenoid B	
3 - 50	*55546110	Spring, Pressure	
3 - 51	*55554560	Arm, Head Base Plate Actuating	
3 - 52	*55046170	Lever Assy, Idler; A	
3 - 53	*55000090	Lever Assy, Idler; B	
3 - 54	*55200110	Spring, Idler Lever; B	
3 - 55	55345730	Belt, Counter; 1	
3 - 56	*55554600	Arm, FWD	
3 - 57	55046260	Reel Table Assy, Supply	

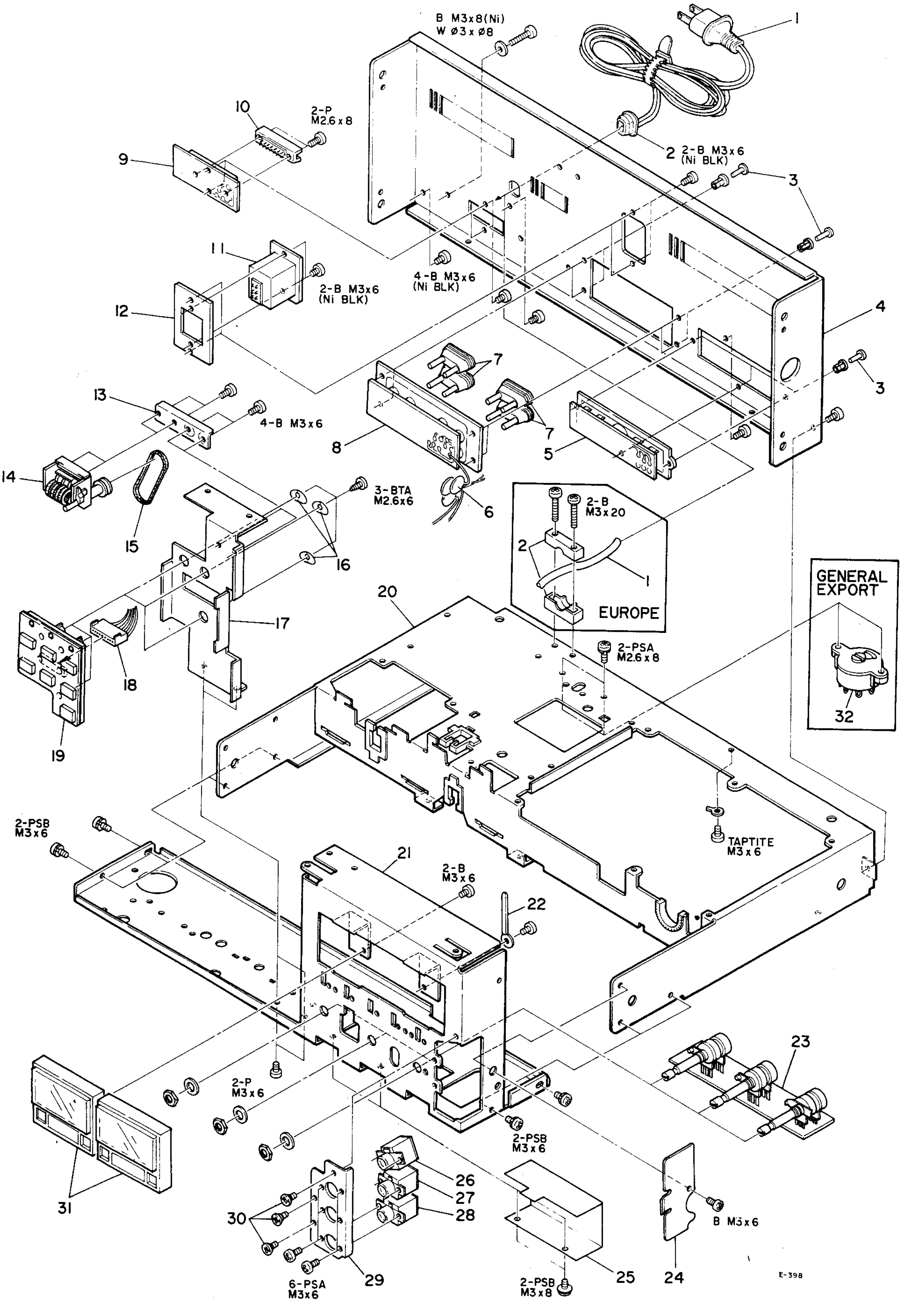
(Continued on Page.22)

EXPLODED VIEW-4


TAPTITE M3x8
TAPTITE M3x8
13
2
2-TAPTITE M3x6
2
2-PSA M3x6
14
1
2
4-PSB M4x15
4
PSB M3x8
3
10
5
7
15
2
8
6
11
5-PSB M3x8
5
10
5-TAPTITE M3x6
9
2-PSB M3x8
12
2
16
2-B M3x6
29
30
17
18
19
2-PSA M3x6
2-PSA M3x6
3-PSA M3x6
2-B M3x6 (NI BLK)
20
21
22
24
25
25
26
2
PSB M3x8
28
27
2-TAPTITE M3x6
23
5-PSB M3x8
2-PSB M3x8
E-397
2-PSB M3x8

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
4 - 1	51520910	Transformer, Power	JAPAN
	51521050	Transformer, Power	U.S.A.
	51521060	Transformer, Power	CANADA
	51521070	Transformer, Power	GENERAL EXPORT
	51521080	Transformer, Power	EUROPE, U.K., AUSTRALIA
4 - 2	*55810380	Clamp, Cord; A	
4 - 3	*55555120	Spacer, Transformer	
4 - 4	*55554690	Bracket, PCB	
4 - 5	*50438480	Connector, Socket Housing; 6P	
4 - 6	*55532530	Plate, Trimmer Cap. Shield	
4 - 7	*51687172	PCB Assy, REC/PLAY	
4 - 8	*51687190	PCB Assy, DOLBY NR	
4 - 9	*51687180	PCB Assy, TRIMMER	
4 - 10	*50438470	Connector, Socket Housing; 10P	
4 - 11	*51221640	Connector, Socket; 2P	
4 - 12	*55331310	Spacer, Lever Switch	
4 - 13	*51451080	Transistor, 2SD762P	Part of 4 - 15
4 - 14	*55552701	Heat Sink	
4 - 15	51687230	PCB Assy, POWER SUPPLY	
4 - 16	*51686540	PCB Assy, TIMER	
4 - 17	51340360	Switch, Power	JAPAN, GENERAL EXPORT, AUSTRALIA
	51340370	Switch, Power	U.S.A.
	51340180	Switch, Power	CANADA
	51340440	Switch, Power	EUROPE, U.K.
4 - 18	50529050	Spark Killer, 0.1 mfd + 120 ohm 400 VAC	JAPAN
	50529060	Spark Killer, 0.033 mfd + 120 ohm 125 VAC	U.S.A.
	50529110	Spark Killer, 0.033 mfd + 120 ohm 250 VAC	CANADA
	50529070	Spark Killer, 0.01 mfd + 300 ohm 400 VAC	GENERAL EXPORT, AUSTRALIA
	50529080	Spark Killer, 4700 pfd 250V	EUROPE, U.K.
4 - 19	*55532240	Chassis, Side	
4 - 20	*55344221	Rod, Power Switch	
4 - 21	55344310	Button, B	
4 - 22	*55344920	Rod, Timmer Switch	
4 - 23	*55545040	Mask, Lever Switch	
4 - 24	55342960	Button, Push	
4 - 25	*55344940	Clamp, Cord; J	
4 - 26	*55552850	Bracket, PCB	
4 - 27	51687711	PCB Assy, CONTROL	
4 - 28	*51687240	PCB Assy, CONTROL (LOADING)	
4 - 29	*55552870	Bracket, FUSE PCB	All except JAPAN
4 - 30	*51687540	PCB Assy, Fuse	U.S.A., CANADA
	*51687550	PCB Assy, Fuse	EUROPE, U.K., AUSTRALIA
	*50412370	Holder, Fuse (Part of 4 - 30)	U.S.A., CANADA
	*51420870	Holder, Fuse (Part of 4 - 30)	EUROPE, U.K., AUSTRALIA
	*50411570	Fuse, 4A (F1, F2)	U.S.A., CANADA
	*51420910	Fuse, 3A (F3)	U.S.A., CANADA
	*50411440	Fuse, 2A (F4)	U.S.A., CANADA
	*50411450	Fuse, 1A (F5)	U.S.A., CANADA
	*50411560	Fuse, 4AF (F1, F2)	EUROPE, U.K., AUSTRALIA
	*51421880	Fuse, 1.6AT (F3)	EUROPE, U.K., AUSTRALIA
	*51421870	Fuse, 1.25AT (F4)	EUROPE, U.K., AUSTRALIA
	*50411410	Fuse, 1AF (F5)	EUROPE, U.K., AUSTRALIA

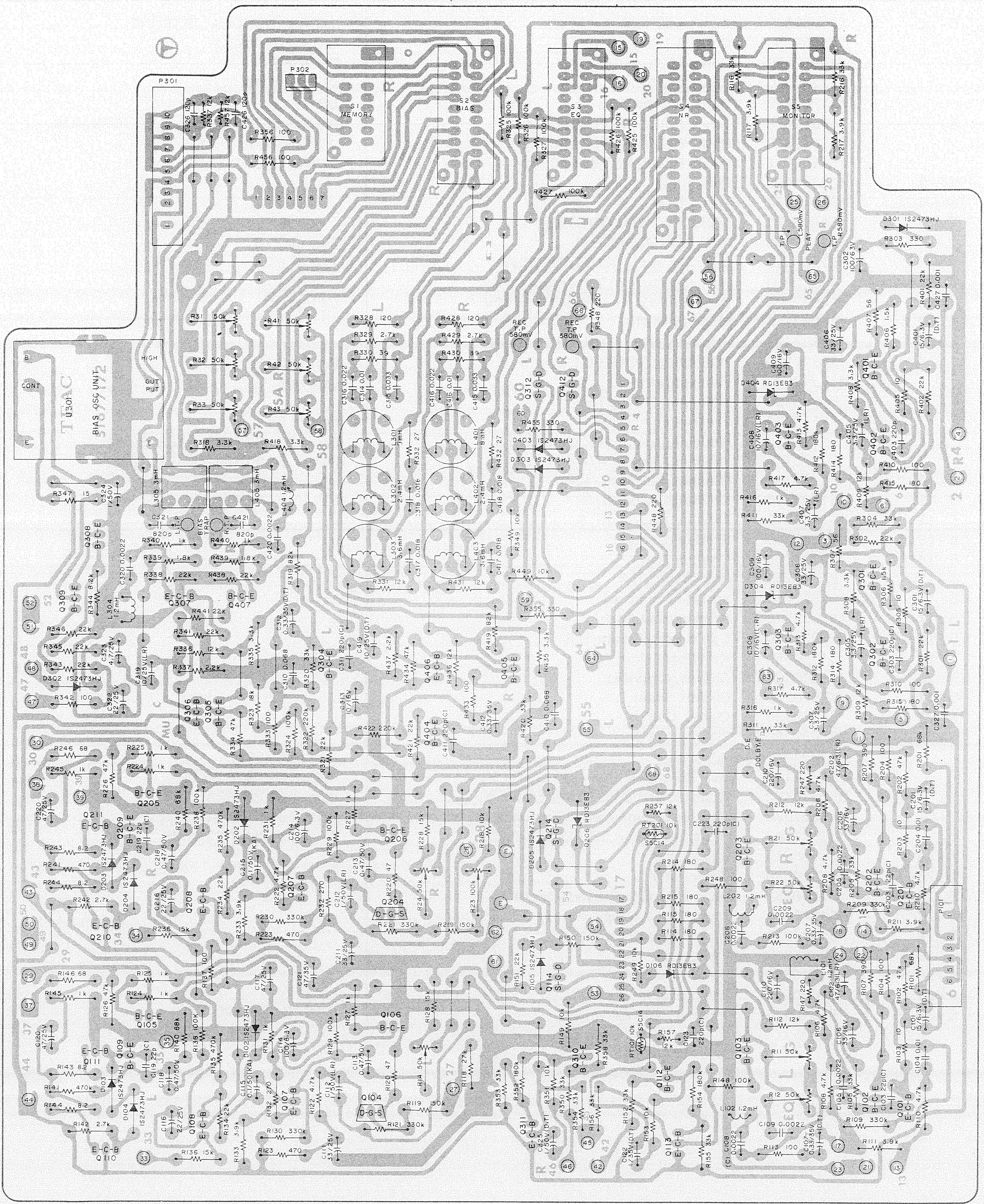
EXPLODED VIEW-5


B M3x8(Ni)
W Ø3xØ8
1
10
2-P
M2.6x8
9
2
2-B M3x6
(Ni BLK)
3
11
2-B M3x6
(Ni BLK)
4-B M3x6
(Ni BLK)
12
4
7
3
13
4-B M3x6
7
8
5
14
3-BTA
M2.6x6
6
2-B
M3x20
15
16
2
1
20
EUROPE
17
GENERAL
EXPORT
18
2-PSA
M2.6x8
19
32
2-PSB
M3x6
TAPTITE
M3x6
21
2-B
M3x6
22
23
2-P
M3x6
2-PSB
M3x6
31
26
27
30
28
B M3x6
6-PSA
M3x6
29
2-PSB
M3x8
25
24
E-398

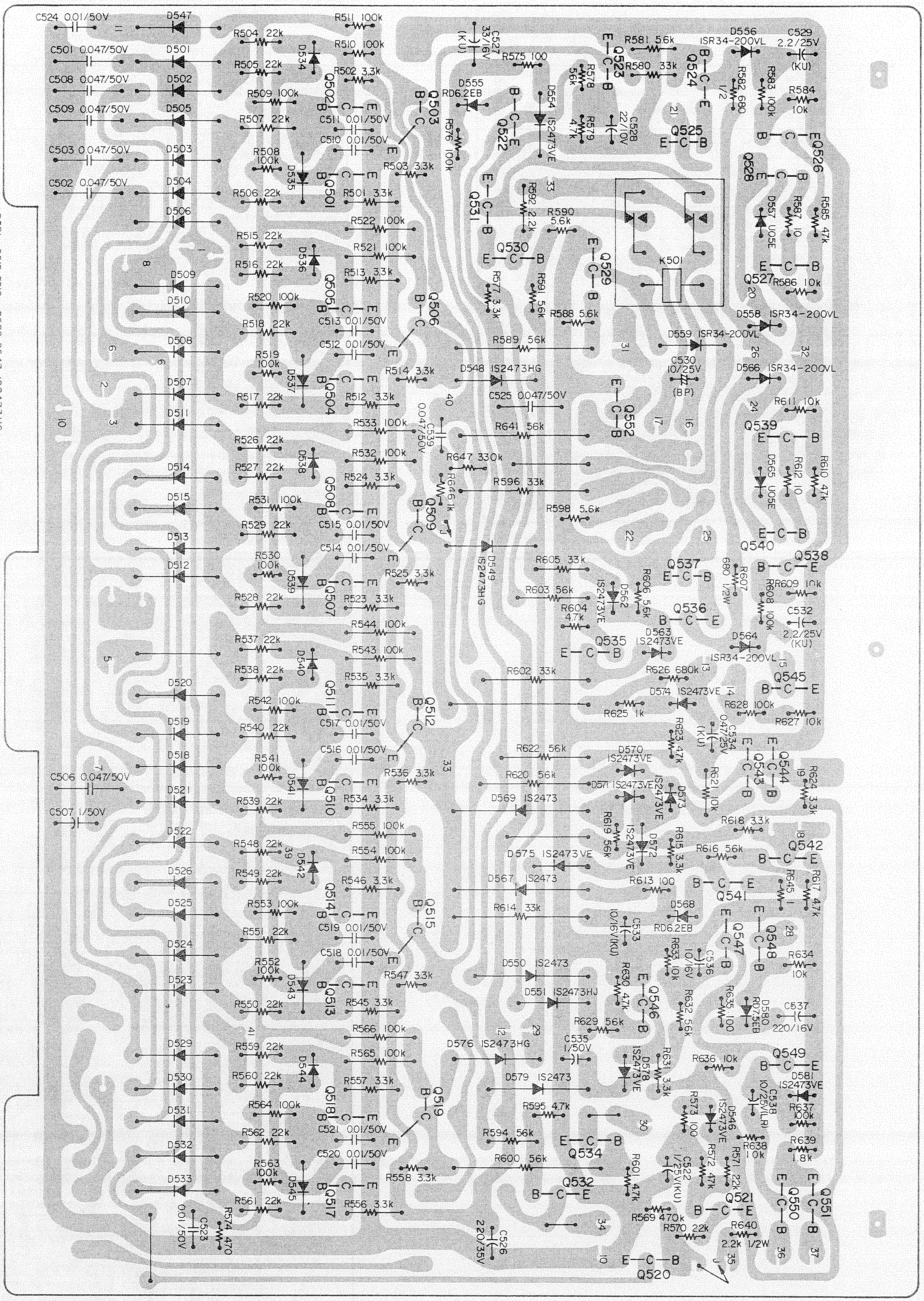
REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
5 - 1	*51280340	Cord, AC Power	JAPAN, GENERAL EXPORT
	*51280750	Cord, AC Power	U.S.A., CANADA
	*51280180	Cord, AC Power	EUROPE
	*51280310	Cord, AC Power	AUSTRALIA
	*51280360	Cord, AC Power	U.K.
5 - 2	*55300470	Strain Relief, AC Power Cord	All except EUROPE, U.K., AUSTRALIA
	*55342690	Strain Relief, AC Power Cord	AUSTRALIA
	*55340841	Strain Relief, AC Power Cord	EUROPE, U.K.
5 - 3	*55341180	Push Rivet	
5 - 4	*55522940	Panel, Rear	
5 - 5	*51687270	PCB Assy, INPUT/OUTPUT	
	*51677270	PCB, INPUT/OUTPUT	Part of 5 - 5
	*51260330	Terminal Assy, INPUT/OUTPUT	Part of 5 - 5
	*51830900	Resistor, Carbon; 2.2 k ohm ¼W 5%	Part of 5 - 5
5 - 6	*50542300	Capacitor, Ceramic; 0.047 mfd 50V	C11~C13
5 - 7	51240510	Plug, Short Pin	
5 - 8	*51687220	PCB Assy, INPUT/OUTPUT (DBX)	
	*51677220	PCB, INPUT/OUTPUT	Part of 5 - 8
	*51240550	Pin Jack; 8P	Part of 5 - 8
5 - 9	*51686590	PCB Assy, REMOTE	
	*55540990	Bracket, Connector	Part of 5 - 1
	*51830820	Resistor, Carbon; 1 k ohm ¼W 5%	Part of 5 - 9 (R690, R692, R694)
	*51830740	Resistor, Carbon; 470 ohm ¼W 5%	Part of 5 - 9 (R691, R693, R695)
5 - 10	*51223360	Connector, Socket; 12P	
5 - 11	*51223390	Connector, Socket; 6P	
5 - 12	*55553440	Bracket, Connector; B	
5 - 13	*55552640	Bracket, Counter	
5 - 14	55030890	Counter Assy	
5 - 15	55345740	Belt, Counter; 2	
5 - 16	*55552710	Spring, Key Board	
5 - 17	*55532210	Bracket, Key Board	
5 - 18	*51221740	Connector, Socket; 12P	
5 - 19	51380050	Key Board Unit, 12P	
5 - 20	*55510220	Chassis, Amplifier	
5 - 21	*55510230	Chassis, Front	
5 - 22	*55810380	Clamp, Cord; A	
5 - 23	*51687280	PCB Assy, VR	
	*51677280	PCB, VR	Part of 5 - 23
	*51502120	Var. Res., 50 k ohm - A x 2	Part of 5 - 23 (R1~R3)
	*50571160	Resistor, Carbon; 27 k ohm ¼W 5%	Part of 5 - 23 (R34)
	*51501570	Var. Res., Semi-fixed; 100 k ohm - B	Part of 5 - 23 (R44)
	*50571240	Resistor, Carbon; 56 k ohm ¼W 5%	Part of 5 - 23 (R35, R45)
5 - 24	*55555230	Shield, Jack	
5 - 25	*55554680	Paper, Shield	
5 - 26	51240281	Jack, Phone; Single (w/Switch)	
5 - 27	51240230	Jack, Phone; Single	
5 - 28	51240220	Jack, Phone; 3 Cond.	
5 - 29	*55555220	Plate, Jack	
5 - 30	*55810560	Screw, Shaft; A	
5 - 31	51650531	Meter, Peak	
5 - 32	*51310070	Selector, Voltage	GENERAL EXPORT

2. PC BOARD SECTION (Diagram)

2-1. REC/PLAY AMP PCB ASSY


P301
P302
S1 MEMORY
S2 BIAS
S3 EQ
S4 NR
S5 MONITOR
U301 BIAS OSC UNIT
HIGH
OUT PUT
CONT
BIAS TRAP
REC T.P 580mV
PLAY T.P L580mV
T.P R580mV
DOLBY IC
P101
P-462

2-2. CONTROL PCB ASSY


C524 0.01/50V
D547
R511 100k
C527 33/16V (KU)
R581 5.6k
D556 ISR34-200VL
C529 2.2/25V (KU)
C501 0.047/50V
D501
R504 22k
R510 100k
R575 100
Q523
R580 33k
Q524
C508 0.047/50V
D502
R505 22k
D534
R502 3.3k
D555 RD6.2EB
R578 56k
R582 680 1/2
R583 100k
R584 10k
C509 0.047/50V
D505
R509 100k
Q502
Q503
D554 1S2473VE
R579 4.7k
C528 22/10V
Q525
R507 22k
C511 0.01/50V
C510 0.01/50V
R576 100k
Q522
Q526
C503 0.047/50V
D503
R508 100k
D535
R503 3.3k
Q528
C502 0.047/50V
D504
R506 22k
Q501
R501 3.3k
Q531
R592 2.2k
R590 5.6k
D557 U05E
R587 10
R585 4.7k
D506
R522 100k
R515 22k
R521 100k
Q530
Q529
K501
R516 22k
D536
R513 3.3k
D509
Q505
R577 3.3k
R591 56k
Q527
R586 10k
D510
R520 100k
Q506
R588 5.6k
R518 22k
C513 0.01/50V
D558 ISR34-200VL
D508
C512 0.01/50V
R589 56k
D559 ISR34-200VL
R519 100k
D537
C530 10/25V (BP)
D566 ISR34-200VL
D507
R514 3.3k
D548 1S2473HG
R517 22k
Q504
R512 3.3k
C525 0.047/50V
Q552
R611 10k
D511
R533 100k
C531 0.047/50V
R641 56k
Q539
R526 22k
R532 100k
R647 330k
D538
D565 U05E
R612 10
R610 4.7k
D514
R527 22k
R524 3.3k
R646 1k
R596 33k
D515
R531 100k
Q508
Q509
R598 5.6k
R529 22k
C515 0.01/50V
Q540
D513
C514 0.01/50V
D549 1S2473HG
R605 33k
Q537
R607 680 1/2W
Q538
D512
R530 100k
D539
R525 3.3k
R606 5.6k
D562 1S2473VE
R609 10k
R608 100k
R528 22k
Q507
R523 3.3k
R603 5.6k
R604 4.7k
Q536
C532 2.2/25V (KU)
R544 100k
D563 1S2473VE
Q535
D564 ISR34-200VL
R537 22k
D540
R543 100k
R538 22k
R535 3.3k
R602 33k
R626 680k
Q545
D520
Q511
D574 1S2473VE
R542 100k
Q512
R628 100k
R625 1k
R627 10k
D519
R540 22k
C517 0.01/50V
R623 4.7k
C534 0.47/25V (KU)
Q543
Q544
D518
C516 0.01/50V
R622 5.6k
D570 1S2473VE
R541 100k
D541
R536 3.3k
R620 56k
D571 1S2473VE
D573 1S2473VE
R621 10k
R624 3.3k
C506 0.047/50V
D521
R539 22k
Q510
R534 3.3k
D569 1S2473
C507 1/50V
R555 100k
R619 56k
D572 1S2473VE
R615 3.3k
R618 3.3k
D522
R548 22k
R554 100k
D575 1S2473VE
R616 5.6k
Q542
D542
D526
R549 22k
R546 3.3k
D567 1S2473
R613 100
Q541
R645 1
R617 4.7k
D525
R553 100k
Q514
Q515
R614 33k
D568 RD6.2EB
C533 10/16V (KU)
Q547
Q548
R551 22k
C519 0.01/50V
R633 10k
C536 10/16V
D524
C518 0.01/50V
D550 1S2473
R634 10k
R552 100k
D543
R547 3.3k
R630 4.7k
D523
Q513
D551 1S2473HJ
Q546
R632 5.6k
R635 100
D580 RD7.5EB
C537 220/16V
R550 22k
R545 3.3k
R566 100k
R629 56k
C535 1/50V
D529
R559 22k
R565 100k
D576 1S2473HG
D578 1S2473VE
R631 3.3k
R636 10k
Q549
D544
D530
R560 22k
R557 3.3k
D579 1S2473
D581 1S2473VE
Q518
Q519
R573 100
D546 1S2473VE
C538 10/25V (LR)
R637 100k
D531
R564 100k
R595 4.7k
C521 0.01/50V
R594 5.6k
Q534
R639 1.8k
R562 22k
C520 0.01/50V
D532
R600 56k
R601 4.7k
C522 1/50V (KU)
R572 4.7k
R571 22k
R638 10k
R563 100k
D545
R558 3.3k
Q532
Q550
Q551
D533
Q517
Q521
R561 22k
R556 3.3k
C523 0.01/50V
R574 470
C526 220/35V
R569 470k
R570 22k
R640 2.2k 1/2W
Q520

D501~D515,D518 D526,D547 1S2473HG

D534~D545 1S2473VE

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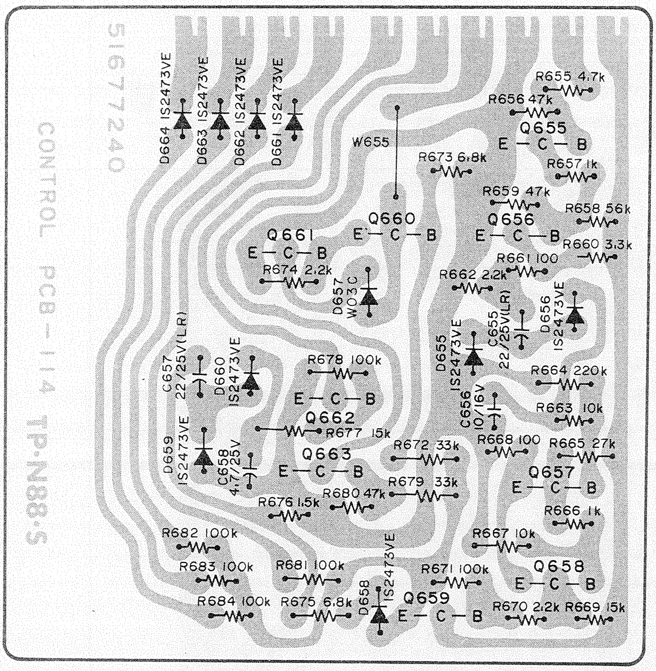
2-3. CONTROL PCB ASSY (LOADING)


51677240
CONTROL PCB-114 TP-N88-S
D664 IS2473VE
D663 IS2473VE
D662 IS2473VE
D661 IS2473VE
R655 4.7k
R656 47k
Q655
E—C—B
W655
R673 6.8k
R657 1k
R659 47k
R658 56k
Q660
Q661
Q656
R660 3.3k
R661 100
R674 2.2k
D657 W03C
R662 2.2k
C655 22/25V(LR)
D656 IS2473VE
D655 IS2473VE
C657 22/25V(LR)
D660 IS2473VE
R678 100k
Q662
R677 15k
R664 220k
C656 10/16V
R663 10k
D659 IS2473VE
C658 4.7/25V
Q663
R672 33k
R668 100
R665 27k
Q657
R676 1.5k
R680 47k
R679 33k
R666 1k
R682 100k
R667 10k
R683 100k
R681 100k
R671 100k
Q658
R684 100k
R675 6.8k
D658 IS2473VE
Q659
R670 2.2k
R669 15k

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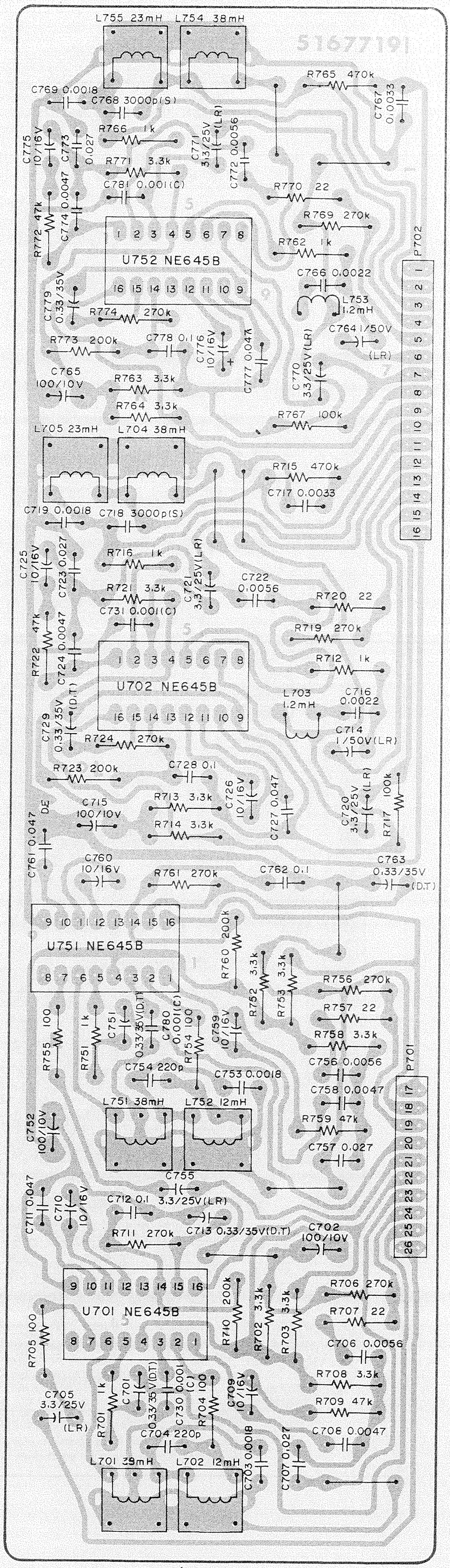
2-4. DOLBY NR PCB ASSY


51677191
L755 23mH
L754 38mH
C769 0.0018
C768 3000p(S)
R765 470k
C767 0.0033
C775 10/16V
C773 0.027
R766 1k
C771 3.3/25V
(LR)
C772 0.0056
R771 3.3k
C781 0.001(C)
R770 22
R772 47k
C774 0.0047
R769 270k
U752 NE645B
R762 1k
P702
C779 0.33/35V
C766 0.0022
L753 1.2mH
R774 270k
C764 1/50V
(LR)
R773 200k
C778 0.1
C776 10/16V
C777 0.047
C770 3.3/25V(LR)
C765 100/10V
R763 3.3k
R764 3.3k
R767 100k
L705 23mH
L704 38mH
R715 470k
C717 0.0033
C719 0.0018
C718 3000p(S)
C725 10/16V
C723 0.027
R716 1k
C721 3.3/25V(LR)
C722 0.0056
R721 3.3k
R720 22
C731 0.001(C)
R719 270k
R722 47k
C724 0.0047
U702 NE645B
R712 1k
L703 1.2mH
C716 0.0022
C729 0.33/35V
(D.T)
R724 270k
C714 1/50V(LR)
R723 200k
C728 0.1
C715 100/10V
R713 3.3k
C726 10/16V
C727 0.047
C720 3.3/25V(LR)
R717 100k
R714 3.3k
C761 0.047
DE
C760 10/16V
R761 270k
C762 0.1
C763 0.33/35V
(D.T)
U751 NE645B
R760 200k
R752 3.3k
R753 3.3k
R756 270k
R757 22
R755 100
R751 1k
C751 0.33/35V(D.T)
C780 0.001(C)
R754 100
C759 10/16V
R758 3.3k
C756 0.0056
C754 220p
C753 0.0018
C758 0.0047
P701
L751 38mH
L752 12mH
R759 47k
C752 100/10V
C757 0.027
C755
C711 0.047
C710 10/16V
C712 0.1
3.3/25V(LR)
R711 270k
C713 0.33/35V(D.T)
C702 100/10V
U701 NE645B
R710 200k
R702 3.3k
R703 3.3k
R706 270k
R707 22
R705 100
C706 0.0056
C705 3.3/25V
(LR)
R701 1k
C701 0.33/35V(DT)
C730 0.001(C)
R704 100
C709 10/16V
R708 3.3k
R709 47k
C704 220p
C708 0.0047
C707 0.027
C703 0.0018
L701 39mH
L702 12mH

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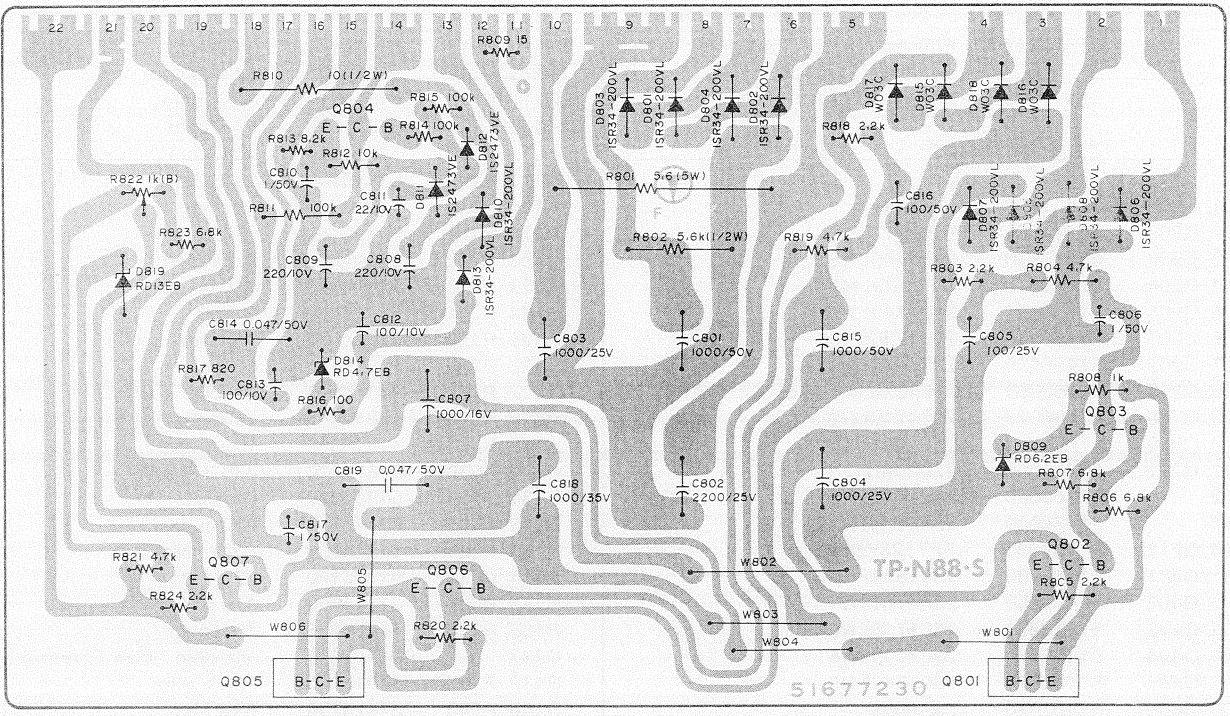
2-5. POWER SUPPLY PCB ASSY


22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
R809 15
R810 10(1/2W)
Q804
E-C-B
R815 100k
R814 100k
R813 8.2k
R812 10k
C810 1/50V
R822 1k(B)
C811 22/10V
D811 IS2473VE
D812 IS2473VE
D810 ISR34-200VL
R811 100k
R823 6.8k
D819 RD13EB
C809 220/10V
C808 220/10V
D813 ISR34-200VL
D803 ISR34-200VL
D801 ISR34-200VL
D804 ISR34-200VL
D802 ISR34-200VL
D817 W03C
D815 W03C
D818 W03C
D816 W03C
R818 2.2k
R801 5.6(5W)
F
R802 5.6k(1/2W)
R819 4.7k
C816 100/50V
D807 ISR34-200VL
D805 ISR34-200VL
D808 ISR34-200VL
D806 ISR34-200VL
R803 2.2k
R804 4.7k
C814 0.047/50V
C812 100/10V
R817 820
D814 RD4.7EB
C813 100/10V
R816 100
C807 1000/16V
C803 1000/25V
C801 1000/50V
C815 1000/50V
C805 100/25V
C806 1/50V
R808 1k
Q803
E-C-B
D809 RD6.2EB
R807 6.8k
R806 6.8k
C819 0.047/50V
C818 1000/35V
C802 2200/25V
C804 1000/25V
C817 1/50V
R821 4.7k
Q807
E-C-B
R824 2.2k
W805
Q806
E-C-B
W802
TP-N88-S
Q802
E-C-B
R805 2.2k
W806
R820 2.2k
W803
W804
W801
Q805
B-C-E
51677230
Q801
B-C-E

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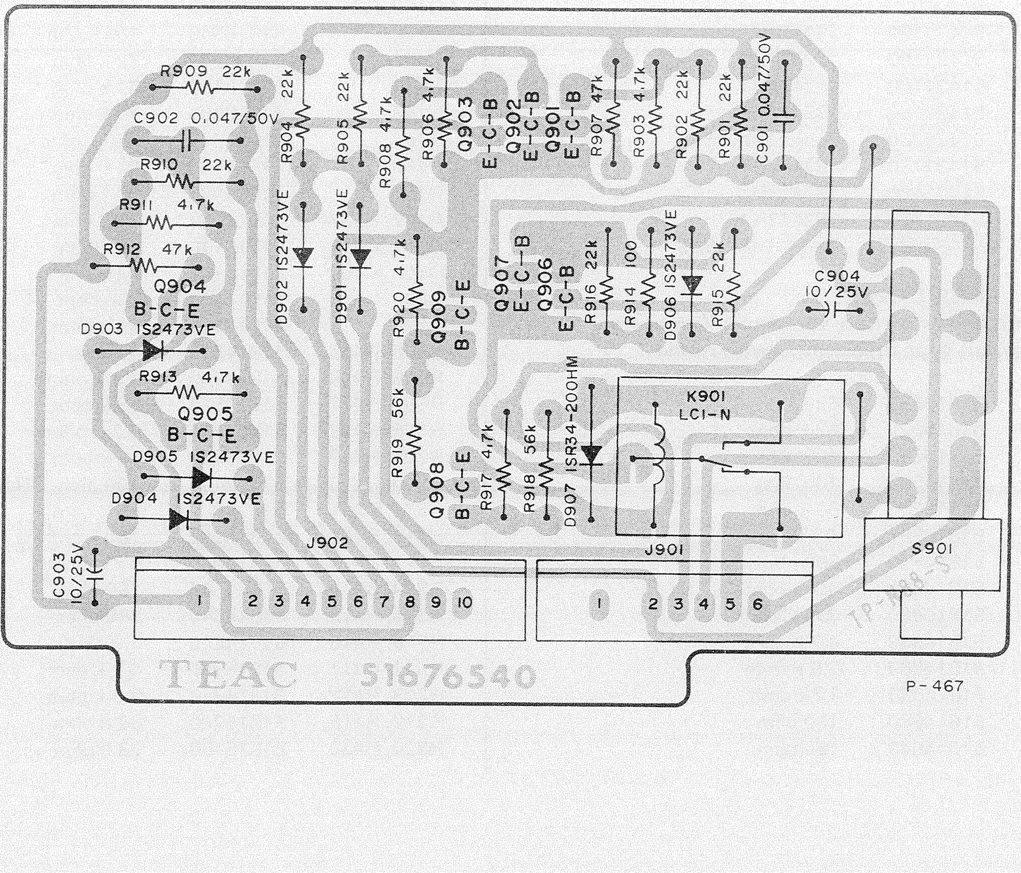
2-6. TIMER PCB ASSY


R909 22k
C902 0.047/50V
R910 22k
R911 4.7k
R912 47k
Q904
B-C-E
D903 IS2473VE
R913 4.7k
Q905
B-C-E
D905 IS2473VE
D904 IS2473VE
C903 10/25V
R904 22k
R905 22k
R908 4.7k
R906 4.7k
Q903 E-C-B
Q902 E-C-B
Q901 E-C-B
R907 47k
R903 4.7k
R902 22k
R901 22k
C901 0.047/50V
D902 IS2473VE
D901 IS2473VE
R920 4.7k
Q909 B-C-E
Q907 E-C-B
Q906 E-C-B
R916 22k
R914 100
D906 IS2473VE
R915 22k
C904 10/25V
R919 56k
Q908 B-C-E
R917 4.7k
R918 56k
D907 ISR34-200HM
K901 LC1-N
J902
1 2 3 4 5 6 7 8 9 10
J901
1 2 3 4 5 6
S901
TP-N88-S
TEAC 51676540

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2. PC BOARD SECTION (Parts List)

2-1. REC/PLAY AMP PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	51687172	PCB Assy, REC/PLAY AMP
	51677170	PCB, REC/PLAY AMP
	TRANSISTORS	
Q101, Q201	51451190	2SC1844F
Q102, Q202	50424950	2SC1222E
Q103, Q203	51450920	2SC1740LNS
Q104, Q204	51451160	FET, 2SK44D
Q105, Q205	51450920	2SC1740LNS
Q106, Q206	51450920	2SC1740LNS
Q107, Q207	51450920	2SC1740LNS
Q108, Q208	51450860	2SC1636 (2)
Q109, Q209	51450920	2SC1740LNS
Q110, Q210	51450980	2SC1741Q
Q111, Q211	51451050	2SA854Q
Q112	51450920	2SC1740LNS
Q113	51450950	2SA826LNS
Q114, Q214	51451030	FFT, 2SK68AM
Q301, Q401	51451190	2SC1844F
Q302, Q402	51450950	2SA826LNS
Q303, Q403	51450920	2SC1740LNS
Q304, Q404	51450920	2SC1740LNS
Q305, Q405	51450920	2SC1740LNS
Q306, Q406	51451130	2SA608F
Q307, Q407	51451000	2SC2409RS
Q308	51450980	2SC1741Q
Q309	51450980	2SC1741Q
Q310	51450920	2SC1740LNS
Q311	51450950	2SA826LNS
Q312, Q412	51451030	FET, 2SK68AM
	DIODES	
D102, D202	51431180	1S2473HJ
D103, D203	51431180	1S2473HJ
D104, D204	51431180	1S2473HJ
D105, D205	51431180	1S2473HJ
D106, D206	51431080	Zener, RD13EB3
D301	51431180	1S2473HJ
D302	51431180	1S2473HJ
D303, D403	51431180	1S2473HJ
D304, D404	51431080	Zener, RD13EB3

RESISTORS

All resistors are rated ±5% tolerance, ¼ watt and of carbon type unless otherwise noted.

REF. NO.	PARTS NO.	DESCRIPTION	
R101, R201	51815260	68 k ohm	
R102, R202	51815220	47 k ohm	
R103, R203	51814340	10 ohm	
R104, R204	51814580	100 ohm	
R105, R205	51815180	33 k ohm	
R106, R206	51814980	4.7 k ohm	
R107, R207	51814720	390 ohm	
R108, R208	51814980	4.7 k ohm	
R109, R209	51815420	330 k ohm	
R110, R210	51814980	4.7 k ohm	
R111, R211	51814960	3.9 k ohm	
R112, R212	51815080	12 k ohm	
R113, R213	51814580	100 ohm	
R114, R214	51814640	180 ohm	
R115, R215	51814700	180 ohm	
R116, R216	51815180	33 k ohm	
R117, R217	51814960	3.9 k ohm	
R118	51831160	27 k ohm	
R218	51815060	10 k ohm	
R119, R219	51815340	150 k ohm	
R120, R220	51814500	47 ohm	
R121, R221	51815420	330 k ohm	
R122, R222	51814980	4.7 k ohm	
R123, R223	51814740	470 ohm	
R124, R224	51814820	1 k ohm	
R125, R225	51814820	1 k ohm	
R126, R226	51815220	47 k ohm	
R127, R227	51814820	1 k ohm	
R128, R228	51815100	15 k ohm	
R129, R229	51815300	100 k ohm	
R130, R230	51815420	330 k ohm	
R131, R231	51814820	1 k ohm	
R132, R232	51814680	270 ohm	
R133, R233	51814960	3.9 k ohm	
R134, R234	51815140	22 k ohm	
R135, R235	51815460	470 k ohm	
R136, R236	51815100	15 k ohm	
R137	51842490	100 ohm	Non Flammable ⚠
R138, R238	51815300	100 k ohm	
R140, R240	51815260	68 k ohm	
R141, R241	51815460	470 k ohm	
R142, R242	51814920	2.7 k ohm	
R143, R243	51841230	8.2 ohm	Non Flammable ⚠
R144, R244	51841230	8.2 ohm	Non Flammable ⚠
R145, R245	51814820	1 k ohm	
R146, R246	51814540	68 ohm	
R147, R247	50570660	220 ohm	
R148, R248	51815300	100 k ohm	
R149, R249	51815060	10 k ohm	
R150	51815340	150 k ohm	
R151	51815140	22 k ohm	
R152	51815180	33 k ohm	
R153	51815060	10 k ohm	
R154	51815360	180 k ohm	
R155	51815180	33 k ohm	
R156	51815180	33 k ohm	
R157, R257	50571080	12 k ohm	
R301, R401	51815140	22 k ohm	
R302, R402	51815140	22 k ohm	
R303	51814700	330 ohm	
R304	51815180	33 k ohm	
R305, R405	51814340	10 ohm	
R306, R406	51814860	1.5 k ohm	
R307, R407	51814520	56 k ohm	
R308, R408	51814940	3.3 k ohm	
R309, R409	51815080	12 k ohm	
R310, R410	51842490	100 ohm	Non Flammable ⚠
R311, R411	51815180	33 k ohm	
R312, R412	51815360	180 k ohm	
R313, R413	51814980	4.7 k ohm	
R314, R414	51814640	180 ohm	
R315, R415	51814640	180 ohm	
R316, R416	51814820	1 k ohm	
R317, R417	51814980	4.7 k ohm	
R318, R418	51814940	3.3 k ohm	
R319, R419	51815280	82 k ohm	
R320, R420	51815180	33 k ohm	

REF. NO.	PARTS NO.	DESCRIPTION
R321, R421	51815140	22 k ohm
R322, R422	51815380	220 k ohm
R323	51831120	18 k ohm
R324	51815300	100 k ohm
R325, R425	51815300	100 k ohm
R326, R426	51815300	100 k ohm
R327, R427	51815300	100 k ohm
R328, R428	51814600	120 ohm
R329, R429	51814920	2.7 k ohm
R330, R430	51814480	39 ohm
R331, R431	51815080	12 k ohm
R332, R432	51814440	27 ohm
R333, R433	51814580	100 ohm
R334, R434	51815220	47 k ohm
R335, R435	51814940	3.3 k ohm
R336, R436	51815080	12 k ohm
R337, R437	51814900	2.2 k ohm
R338, R438	51815140	22 k ohm
R339, R439	51814880	1.8 k ohm
R340, R440	51814820	1 k ohm
R341, R441	51815140	22 k ohm
R342	51814580	100 ohm
R343	51815140	22 k ohm
R344	51831040	8.2 k ohm
R345	51815140	22 k ohm
R346	51815140	22 k ohm
R347	51830380	15 ohm
R348, R448	51814660	220 ohm
R349, R449	51815060	10 k ohm
R350	51815180	33 k ohm
R351	51815060	10 k ohm
R352	51815360	180 k ohm
R353	51815180	33 k ohm
R354	51815180	33 k ohm
R355, R455	51814700	330 ohm
R356, R456	51814580	100 ohm
R357, R457	50571080	12 k ohm
R358	51831180	33 k ohm

CAPACITORS

REF. NO.	PARTS NO.	DESCRIPTION		
C101, C201	50546430	Dip. Tant.	15 mfd	16V
C102, C202	51700740	Elec.	47 mfd	6.3V LR
C103, C203	51722040	Ceramic	22 pfd	50V 10%
C104, C204	51718550	Mylar	0.01 mfd	50V 5%
C105, C205	50548760	Mylar	0.0022 mfd	50V 5%
C106, C206	51713380	Elec.	33 mfd	16V
C107, C207	51719060	Dip. Tant.	0.33 mfd	35V 10%
C108, C208	51703600	Mylar	0.0022 mfd	50V 5%
C109, C209	51703600	Mylar	0.0022 mfd	50V 5%
C110, C210	50554390	Elec.	220 mfd	16V
C111, C211	51713400	Elec.	33 mfd	25V
C112, C212	51700860	Elec.	1 mfd	50V LR
C113, C213	51712800	Elec.	0.47 mfd	50V
C114, C214	50554230	Elec.	100 mfd	6.3V
C115, C215	51714300	Elec.	0.1 mfd	50V
C116, C216	50554950	Elec.	22 mfd	25V
C117	50554490	Elec.	47 mfd	25V
C118, C218	51712800	Elec.	0.47 mfd	50V
C119, C219	51722040	Ceramic	22 pfd	50V 10%
C120, C220	50554490	Elec.	47 mfd	25V
C121	50554520	Elec.	47 mfd	35V
C122	51720520	Dip. Tant.	1 mfd	35V
C123, C223	51723160	Ceramic	220 pfd	50V 10%
C301, C401	51721160	Dip. Tant.	15 mfd	6.3V
C302	51713540	Elec.	100 mfd	6.3V
C303, C403	51722160	Ceramic	220 pfd	50V 10%
C305, C405	51700800	Elec.	3.3 mfd	25V LR
C306, C406	51713400	Elec.	33 mfd	25V
C307, C407	51700800	Elec.	3.3 mfd	25V LR
C308, C408	51700770	Elec.	10 mfd	16V LR
C309, C409	50554200	Elec.	100 mfd	16V
C310, C410	51719000	Mylar	0.068 mfd	50V 5%
C311, C411	51723960	Ceramic	200 pfd	50V 10%
C312, C412	51703000	Dip. Tant.	0.33 mfd	50V 10%
C313	51713140	Elec.	10 mfd	16V
C314, C414	50548770	Mylar	0.01 mfd	50V 5%
C315, C415	51718680	Mylar	0.033 mfd	50V 5%
C316, C416	51718640	Mylar	0.022 mfd	50V 5%
C317, C417	51718620	Mylar	0.018 mfd	50V 5%
C318, C418	51718620	Mylar	0.018 mfd	50V 5%
C319, C419	51700820	Elec.	10 mfd	25V
C320, C420	51703600	Mylar	0.0022 mfd	50V 5%
C321, C421	50543440	Polyst.	820 pfd	50V 10%
C322	50554950	Elec.	22 mfd	25V
C323	51713040	Elec.	4.7 mfd	25V
C324	51712840	Elec.	1 mfd	50V
C325	51720520	Dip. Tant.	1 mfd	35V
C326, C426	50542560	Dip. Mica	120 pfd	50V 10%
C327, C427	51723240	Ceramic	0.001 mfd	50V 10%

VARIABLE RESISTORS

REF. NO.	PARTS NO.	DESCRIPTION
R11, R21	51500940	Semi-fixed, 50 k ohm - B
R12, R22	51500940	Semi-fixed, 50 k ohm - B
R23	51500960	Semi-fixed, 100 k ohm - B
R14, R24	51500940	Semi-fixed, 50 k ohm - B
R31, R41	51500940	Semi-fixed, 50 k ohm - B
R32, R42	51500940	Semi-fixed, 50 k ohm - B
R33, R43	51500940	Semi-fixed, 50 k ohm - B

TRIMMER CAPACITORS

REF. NO.	PARTS NO.	DESCRIPTION
C31, C41	51700470	150 pfd
C32, C42	51700470	150 pfd
C33, C43	51700180	220 pfd

COILS

REF. NO.	PARTS NO.	DESCRIPTION
L101, L201	50566611	Choke, 1.2 mH
L102, L202	50566611	Choke, 1.2 mH
L301, L401	50566350	Record EQ, 8 mH
L302, L402	51600410	Record EQ, 2.4 mH
L303, L403	51600420	Record EQ, 3.6 mH
L304, L404	50566611	Choke, 1.2 mH
L305, L405	50566590	Trap, 3 mH

MISCELLANEOUS

REF. NO.	PARTS NO.	DESCRIPTION
	51687180	PCB Assy, TRIMMER
	51677180	PCB, TRIMMER
U301	50400940	Bias Oscirator Unit, 100 k Hz
S1	51320370	Switch, Lever; DPDT
S2, S3	51320340	Switch, Lever; 4P3T
S4	51320380	Switch, Lever; 6P3T
S5	51320400	Switch, Lever; 4P3T

REF. NO.	PARTS NO.	DESCRIPTION
P101	51220100	Connector, Plug; 6P
P301	51220120	Connector, Plug; 10P
P302	51221260	Connector, Plug; 2P
TP1~TP6	55447500	Pin, Test-point
P303	51224070	Connector, Pin
RT101, RT201	51431270	Thermistor, S5C14

2-2. CONTROL PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	51687711	PCB Assy, CONTROL
	51673882	PCB, CONTROL

TRANSISTORS

REF. NO.	PARTS NO.	DESCRIPTION
Q501~Q520	51450910	2SC945AK
Q521	51450950	2SA826LNS
Q522, Q523	51450910	2SC945AK
Q524	50426250	2SC1318S
Q525	51450870	2SD313E
Q526	51450910	2SC945AK
Q527	50425530	2SA733P
Q528	51450870	2SD313E
Q529, Q530	51450910	2SC945AK
Q531	50424910	2SC1384R
Q532~Q535	51450910	2SC945AK
Q536	50426250	2SC1318S
Q537	51450870	2SD313E
Q538	51450910	2SC945AK
Q539	50425530	2SA733P
Q540	51450870	2SD313E
Q541, Q542	50426250	2SC1318S
Q543~Q552	51450910	2SC945AK

DIODES

REF. NO.	PARTS NO.	DESCRIPTION
D501~D515	51431190	1S2473HG
D518~D526	51431190	1S2473HG
D529~D533	51431190	1S2473HG
D534~D546	50425170	1S2473VE
D547~D549	51431190	1S2473HG
D550	50425500	1S2473
D551	51431190	1S2473HG
D554	50425170	1S2473VE
D555	50425540	Zener, RD6.2EB 3%
D556	51430890	W03C
D557	51430180	U05E
D558, D559	51430890	W03C
D562, D563	50425170	1S2473VE
D564	51430890	W03C
D565	51430180	U05E
D566	51430890	W03C
D567	50425500	1S2473
D568	50425540	Zener, RD6.2EB
D569	50425500	1S2473
D570~D575	50425170	1S2473VE
D576	51431190	1S2473HG
D578	50425170	1S2473VE
D579	50425500	1S2473
D580	51431220	Zener, RD7.5EB
D581	50425170	1S2473VE

CARBON RESISTORS

All resistors are rated ±5% and ¼ watt unless otherwise noted.

REF. NO.	PARTS NO.	DESCRIPTION
R501~R503	50570940	3.3 k ohm
R504~R507	50571140	22 k ohm
R508~R511	50571300	100 k ohm
R512~R514	50570940	3.3 k ohm
R515~R518	50571140	22 k ohm
R519~R522	50571300	100 k ohm
R523~R525	50570940	3.3 k ohm
R526~R529	50571140	22 k ohm
R530~R533	50571300	100 k ohm
R534~R536	50570940	3.3 k ohm
R537~R540	50571140	22 k ohm
R541~R544	50571300	100 k ohm
R545~R547	50570940	3.3 k ohm
R548~R551	50571140	22 k ohm
R552~R555	50571300	100 k ohm
R556~R558	50570940	3.3 k ohm
R559~R562	50571140	22 k ohm
R563~R566	50571300	100 k ohm
R569	50571460	470 k ohm
R570, R571	50571140	22 k ohm
R572	50571220	47 k ohm
R573	50570580	100 ohm
R574	50570740	470 ohm
R575	50570580	100 ohm
R576	50571300	100 k ohm
R577	50570940	3.3 k ohm
R578	50571240	56 k ohm
R579	50570980	4.7 k ohm
R580	50571180	33 k ohm
R581	50571000	5.6 k ohm
R582	50574780	680 ohm ½W
R583	50571300	100 k ohm
R584	50571060	10 k ohm
R585	50571220	47 k ohm
R586	50571060	10 k ohm
R587	50570340	10 ohm
R588	50571000	5.6 k ohm
R589	50573240	56 k ohm
R590	50571000	5.6 k ohm
R591	50571240	56 k ohm
R592	50570900	2.2 k ohm
R594	50571240	56 k ohm
R595	50570980	4.7 k ohm
R600	50573240	56 k ohm
R601	50570980	4.7 k ohm
R602	50573180	33 k ohm
R603	50571240	56 k ohm
R604	50570980	4.7 k ohm
R605	50571180	33 k ohm
R606	50571000	5.6 k ohm
R607	50574780	680 ohm ½W
R608	50571300	100 k ohm
R609	50571060	10 k ohm
R610	50571220	47 k ohm

REF. NO.	PARTS NO.	DESCRIPTION
R611	50571060	10 k ohm
R612	50570340	10 ohm
R613	50570580	100 ohm
R614	50573180	33 k ohm
R615	50570940	3.3 k ohm
R616	50571240	56 k ohm
R617	50570980	4.7 k ohm
R618	50570940	3.3 k ohm
R619	50571240	56 k ohm
R620	50573240	56 k ohm
R621	50571060	10 k ohm
R622	50573240	56 k ohm
R623	50570980	4.7 k ohm
R624	50570940	3.3 k ohm
R625	50570820	1 k ohm
R626	50571500	680 k ohm
R627	50571060	10 k ohm
R628	50571300	100 k ohm
R629	50571240	56 k ohm
R630	50570980	4.7 k ohm
R631	50570940	3.3 k ohm
R632	50571240	56 k ohm
R633	50571060	10 k ohm
R634	50571060	10 k ohm
R635	50570580	100 ohm
R636	50571060	10 k ohm
R637	50571300	100 k ohm
R638	50571060	10 k ohm
R639	50570880	1.8 k ohm
R640	50517860	2.2 k ohm ½W
R641	50573240	56 k ohm
R643	50571000	5.6 k ohm
R645	50570100	1 ohm
R646	50570820	1 k ohm
R647	50573420	330 k ohm

CAPACITORS

REF. NO.	PARTS NO.	DESCRIPTION		
C501~C503	50542300	Ceramic	0.047 mfd	50V
C506	50542300	Ceramic	0.047 mfd	50V
C507	50554540	Elec.	1 mfd	50V
C508, C509	50542300	Ceramic	0.047 mfd	50V
C510~C521	50542040	Ceramic	0.01 mfd	50V
C522	50549660	Elec.	1 mfd	25V (KU)
C523, C524	50542040	Ceramic	0.01 mfd	50V
C525	50542300	Ceramic	0.047 mfd	50V
C526	50554380	Elec.	220 mfd	35V
C527	50549790	Elec.	33 mfd	16V (KU)
C528	50554720	Elec.	22 mfd	10V
C529	50549670	Elec.	2.2 mfd	25V (KU)
C530	50559350	Elec.	10 mfd 25V	(Bipolar)
C532	50549670	Elec.	2.2 mfd	25V (KU)
C533	50549770	Elec.	10 mfd	16V (KU)
C534	50549650	Elec.	0.47 mfd	25V (KU)
C535	50554540	Elec.	1 mfd	50V
C536	50554050	Elec.	10 mfd	16V
C537	50554390	Elec.	220 mfd	16V
C538	51700820	Elec.	10 mfd	25V (LR)
C539	50548270	Mylar	0.047 mfd	50V 10%

RELAY

REF. NO.	PARTS NO.	DESCRIPTION
K501	50611000	MX2P-0 24V

MISCELLANEOUS

REF. NO.	PARTS NO.	DESCRIPTION
	51812090	Jumper, JPW-02 (8 used)

2-3. CONTROL PCB ASSY (LOADING)

REF. NO.	PARTS NO.	DESCRIPTION
	51687240	PCB Assy, CONTROL (LOADING)
	51677240	PCB, CONTROL (LOADING)

TRANSISTORS

REF. NO.	PARTS NO.	DESCRIPTION
Q655~Q658	51450910	2SC945AK
Q659	51450980	2SC1741Q
Q660	51450910	2SC945AK
Q661	51450820	2SC2060Q
Q662	51450910	2SC945AK

DIODES

REF. NO.	PARTS NO.	DESCRIPTION
D655, D656	50425170	1S2473VE
D657	51430890	W03C
D658~D664	50425170	1S2473VE

CARBON RESISTORS

All resistors are rated ±5% tolerance and ¼ watt.

REF. NO.	PARTS NO.	DESCRIPTION
R655	50570980	4.7 k ohm
R656	50571220	47 k ohm
R657	50570820	1 k ohm
R658	50571240	56 k ohm
R659	50571220	47 k ohm
R660	50570940	3.3 k ohm
R661	50570580	100 ohm
R662	50570900	2.2 k ohm
R663	50571060	10 k ohm
R664	50571380	220 k ohm
R665	50571160	27 k ohm
R666	50570820	1 k ohm
R667	50571060	10 k ohm
R668	50570580	100 ohm
R669	50571100	15 k ohm
R670	50570900	2.2 k ohm
R671	50571300	100 k ohm
R672	50571180	33 k ohm
R673	50571020	6.8 k ohm
R674	50570900	2.2 k ohm
R675	50571020	6.8 k ohm
R676	50570860	1.5 k ohm
R677	50571100	15 k ohm
R678	50571300	100 k ohm
R679	50571180	33 k ohm
R680	50571220	47 k ohm
R681~R684	50571300	100 k ohm

REF. NO.	PART NO.	DESCRIPTION			
	CAPACITORS				
C655	51703400	Elec.	22 mfd	25V (LR)	
C656	50554050	Elec.	10 mfd	16V	
C657	51703400	Elec.	22 mfd	25V (LR)	
C658	50554530	Elec.	4.7 mfd	25V	
	MISCELLANEOUS				
W655	51812090	Jumper, JPW-02			

2-4. DOLBY NR PCB ASSY

REF. NO.	PART NO.	DESCRIPTION			
	51687190	PCB Assy, DOLBY NR			
	51677190	PCB, DOLBY NR			
	IC's				
U701, U751	51470400	NE645B			
U702, U752	51470400	NE645B			
	CARBON RESISTORS				
	All resistors are rated ±5% tolerance and ¼ watt.				
R701, R751	51814820	1 k ohm			
R702, R752	51814940	3.3 k ohm			
R703, R753	51814940	3.3 k ohm			
R704, R754	51814580	100 ohm			
R705, R755	51830580	100 ohm			
R706, R756	51815400	270 k ohm			
R707, R757	51814420	22 ohm			
R708, R758	51814940	3.3 k ohm			
R709, R759	51815220	47 k ohm			
R710, R760	51815370	200 k ohm			
R711, R761	51815400	270 k ohm			
R712, R762	51814820	1 k ohm			
R713, R763	51814940	3.3 k ohm			
R714, R764	51814940	3.3 k ohm			
R715, R765	51815460	470 k ohm			
R716, R766	51814820	1 k ohm			
R717, R767	51815300	100 k ohm			
R719, R769	51815400	270 k ohm			
R720, R770	51814420	22 ohm			
R721, R771	51814940	3.3 k ohm			
R722, R772	51831220	47 k ohm			
R723, R773	51815370	200 k ohm			
R724, R774	51815400	270 k ohm			
	CAPACITORS				
C701, C751	51703000	Dip. Tant.	0.033 mfd	35V	10%
C702, C752	51713560	Elec.	100 mfd	10V	
C703, C753	51703580	Mylar	0.0018 mfd	50V	5%
C704, C754	50547450	Dip. Mica	220 pfd	50V	10%
C705, C755	51700800	Elec.	3.3 mfd	25V (LR)	
C706, C756	51703700	Mylar	0.0056 mfd	50V	
C707, C757	51718660	Mylar	0.027 mfd	50V	
C708, C758	51703680	Mylar	0.0047 mfd	50V	
C709, C759	51713140	Elec.	10 mfd	16V	
C710, C760	51713140	Elec.	10 mfd	16V	
C711, C761	51718720	Mylar	0.047 mfd	50V	5%
C712, C762	50548040	Mylar	0.1 mfd	50V	10%
C713, C763	51703000	Dip. Tant.	0.33 mfd	35V	10%
C714, C764	51700860	Elec.	1 mfd	50V (LR)	
C715, C765	51713560	Elec.	100 mfd	10V	
C716, C766	51703600	Mylar	0.0022 mfd	50V	5%
C717, C767	51703640	Mylar	0.0033 mfd	50V	5%
C718, C768	50596810	Polyst.	3000 pfd	50V	5%
C719, C769	50548880	Mylar	0.0018 mfd	50V	5%
C720, C770	51700800	Elec.	3.3 mfd	25V (LR)	
C721, C771	51700800	Elec.	3.3 mfd	25V (LR)	
C722, C772	51703700	Mylar	0.0056 mfd	50V	5%
C723, C773	51718600	Mylar	0.027 mfd	50V	5%
C724, C774	51703680	Mylar	0.0047 mfd	50V	5%
C725, C775	51713140	Elec.	10 mfd	16V	
C726, C776	50554050	Elec.	10 mfd	16V	
C727, C777	51718720	Mylar	0.047 mfd	50V	5%
C728, C778	50548040	Mylar	0.1 mfd	50V	10%
C729, C779	51719060	Dip. Tant.	0.33 mfd	35V	10%
C730, C780	51722240	Ceramic	0.001 mfd	50V	10%
C731, C781	51722240	Ceramic	0.001 mfd	50V	10%
	COILS				
L701, L751	50566660	Choke, 38 mH			
L702, L752	50566550	Trap, 12 mH			
L703, L753	50566611	Choke, 1.2 mH			
L704, L754	50566660	Choke, 38 mH			
L705, L755	50566650	Choke, 23 mH			
	MISCELLANEOUS				
	51470160	Socket, IC; 16P (4 used)			
P701	51224100	Connector, Pin; 10P			
P702	51224160	Connector, Pin; 16P			

2-5. POWER SUPPLY PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	51687230	PCB Assy, POWER SUPPLY (JAPAN, GENERAL EXPORT)
	51687720	PCB Assy, POWER SUPPLY (All except JAPAN GENERAL EXPORT)
	51677230	PCB, POWER SUPPLY
	TRANSISTORS	
Q801	51450870	2SD313E
Q802, Q803	51450910	2SC945AK
Q804	51450950	2SA826LNS
Q805	51450870	2SD313E
Q806, Q807	51450910	2SC945AK

DIODES

REF. NO.	PARTS NO.	DESCRIPTION
D801~D804	51431160	1SR34-200VL
D805~D808	50430890	W03C
D809	50425540	Zener, RD6.2EB 3%
D810	50430890	W03C
D811, D812	50425170	1S2473VE
D813	51431160	1SR34-200VL
D814	51431210	Zener, RD4.7EB
D815~D818	50430890	W03C
D819	51431080	Zener, RD13EB

RESISTORS

All resistors are rated ±5% tolerance, ¼ watt and of carbon type unless otherwise noted.

REF. NO.	PARTS NO.	DESCRIPTION
R801	50520610	5.6 ohm 5W 10% Cement ⚠ (JAPAN, GENRAL EXPORT)
	51839100	5.6 ohm 2W Fusible (All except JAPAN, GENERAL EXPORT)
R802	50575000	5.6 k ohm ½W
R803	50570900	2.2 k ohm
R804	50570980	4.7 k ohm
R805	50570900	2.2 k ohm
R806, R807	50571020	6.8 k ohm
R808	50570820	1 k ohm
R809	51818280	15 ohm Non Flammable ⚠
R810	51819740	10 ohm ½W Non Flammable ⚠
R811	50571300	100 k ohm
R812	50571060	10 k ohm
R813	50571040	8.2 k ohm
R814, R815	50571300	100 k ohm
R816	50570580	100 ohm
R817	50570800	820 ohm
R818	50570900	2.2 k ohm
R819	50570980	4.7 k ohm
R820	50570900	2.2 k ohm
R821	50570980	4.7 k ohm
R823	50571020	6.8 k ohm
R824	50570900	2.2 k ohm

CAPACITORS

REF. NO.	PARTS NO.	DESCRIPTION		
C801	50555850	Elec.	1000 mfd	50V
C802	50557140	Elec.	2200 mfd	25V
C803, C804	50555580	Elec.	1000 mfd	25V
C805	50554170	Elec.	100 mfd	25V
C806	50554540	Elec.	1 mfd	50V
C807	50554890	Elec.	1000 mfd	16V
C808, C809	50554910	Elec.	220 mfd	10V
C810	50554540	Elec.	1 mfd	50V
C811	50554720	Elec.	22 mfd	10V
C812, C813	50554570	Elec.	100 mfd	10V
C814	50542300	Ceramic	0.047 mfd	50V
C815	50555850	Elec.	1000 mfd	50V
C816	50554070	Elec.	100 mfd	50V
C817	50554540	Elec.	1 mfd	50V
C818	51700110	Elec.	1000 mfd	35V
C819	50542300	Ceramic	0.047 mfd	50V

VARIABLE RESISTOR

REF. NO.	PARTS NO.	DESCRIPTION
R822	51501510	Semi-fixed, 1 k ohm - B

MISCELLANEOUS

REF. NO.	PARTS NO.	DESCRIPTION
W801~W806	51812090	Jumper, JPW-02

2-6. TIMER PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	51686540	PCB Assy, TIMER
	51676540	PCB, TIMER

TRANSISTORS

REF. NO.	PARTS NO.	DESCRIPTION
Q901~Q907	51450910	2SC945AK
Q908	51450950	2SA826LNS
Q909	51450910	2SC945AK

DIODES

REF. NO.	PARTS NO.	DESCRIPTION
D901~D906	50425170	1S2473VE
D907	51431130	1SR34-200HM

CARBON RESISTORS

All resistors are rated ±5% tolerance and ¼ watt.

REF. NO.	PARTS NO.	DESCRIPTION
R901, R902	51831140	22 k ohm
R903	51830980	4.7 k ohm
R904, R905	51831140	22 k ohm
R906	51830980	4.7 k ohm
R907	51831220	47 k ohm
R908	51830980	4.7 k ohm
R909, R910	51831140	22 k ohm
R911	51830980	4.7 k ohm
R912	51831220	47 k ohm
R913	51831140	4.7 k ohm
R914	51830580	100 ohm
R915, R916	51831140	22 k ohm
R917	51830980	4.7 k ohm
R918, R919	51831240	56 k ohm
R920	51830980	4.7 k ohm

CAPACITORS

REF. NO.	PARTS NO.	DESCRIPTION		
C901, C902	50542300	Ceramic	0.047 mfd	50V
C903, C904	50554040	Elec.	10 mfd	25V

RELAY

REF. NO.	PARTS NO.	DESCRIPTION
K901	50611340	LC1-N

MISCELLANEOUS

REF. NO.	PARTS NO.	DESCRIPTION
S901	51340470	Switch, Push
	51220110	Connector, Plug; 6P
	51220120	Connector, Plug; 10P
	51817630	Jumper

INCLUDED ACCESSORIES

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
	51280650	Cord Assy, Input-output Connection	
	51013690	Information Supplement (Cassette)	JAPAN
	51013450	Information Supplement (Cassette)	U.S.A., CANADA
	51014950	Information Supplement (Cassette)	All except JAPAN, U.S.A. CANADA
	51015390	ff-80 Owner's Manual	JAPAN
	51015400	A-800 Owner's Manual	U.S.A., CANADA
	51014950	A-800 Owner's Manual	All except JAPAN, U.S.A., CANADA

(Continued from Page. 5)

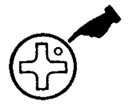
REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
2 - 64	*55552410	Bracket, Micro Switch; C	
2 - 65	55400560	Steel Ball, φ3	
2 - 66	*55241870	Wire, Holding	
2 - 67	*55021950	Chassis Assy, Mechanism	
2 - 68	*50134390	Spacer	

(Continued from Page. 7)

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
3 - 58	55043470	Reel Table Assy, Take-up	
3 - 59	*55554770	Stopper	
3 - 60	*55554540	Sub-Arm, Pause; L	
3 - 61	*55241540	Spring, Return; P	
3 - 62	*55554550	Sub-Arm, Pause; R	
3 - 63	*55241600	Spring, Lock Lever	
3 - 64	*55046320	Lever Assy, Holder Up; 2	
3 - 65	*55046330	Bracket Assy, Lever; 2	
3 - 66	*55045401	Shaft Assy, Pulley	
3 - 67	55045390	Pulley Assy, Counter Relay	
3 - 68	*51682380	PCB Assy, HALL-EFFECT ELEMENT	
	*51430960	Hall-Effect Element	Part of 3 - 68
	*50572740	Resistor, Carbon 470 ohm ¼W 5%	Part of 3 - 68
3 - 69	55001040	Idler Assy	

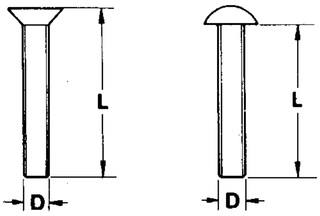
ASSEMBLING HARDWARE CODING LIST

All screws conform to ISO standards, and have crossrecessed heads, unless otherwise noted. ISO screws have the head inscribed with a point as in the figure to the right.

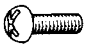
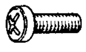
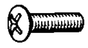
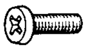
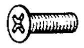
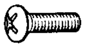
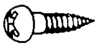
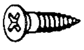
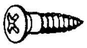
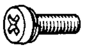
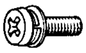
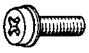
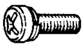
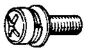


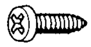
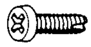
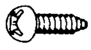
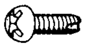
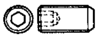
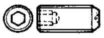
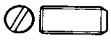
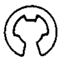
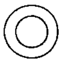
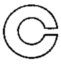
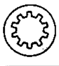
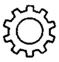
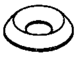
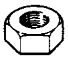
FOR EXAMPLE:

```
B M 3 x 6
| |  |  |
| |  |  L------------ Length in mm (L)
| |  L--------------- Diameter in mm (D) *
| L------------------ Metric System
L-------------------- Nomenclature
```



* Inner dia. for washers and nuts

	Code	Name	Type
MACHINE SCREW	**R**	Round Head Screw	
	P	Pan Head Screw	
	T	Stove Head Screw (Truss)	
	B	Binding Head Screw	
	F	Flat Countersunk Head Screw	
	O	Oval Countersunk Head Screw	
WOOD SCREW	**RW**	Round Head Wood Screw	
	FW	Flat Countersunk Wood Screw	
	OW	Oval Countersunk Wood Screw	
SEMS SCREW	**BSA**	Binding Head SEMS Screw(A Type)	
	BSB	Binding Head SEMS Screw(B Type)	
	BSF	Binding Head SEMS Screw(F Type)	
	PSA	Pan Head SEMS Screw(A Type)	
	PSB	Pan Head SEMS Screw(B Type)	

	Code	Name	Type
TAPPING SCREW	**BTA**	Binding Head Tapping Screw(A Type)	
	BTB	Binding Head Tapping Screw(B Type)	
	RTA	Round Head Tapping Screw(A Type)	
	RTB	Round Head Tapping Screw(B Type)	
SETSCREW	**SF**	Hex Socket Setscrew(Flat Point)	
	SC	Hex Socket Setscrew(Cup Point)	
	SS	Slotted Socket Setscrew(Flat Point)	
WASHER	**E**	E-Ring (Retaining Washer)	
	W	Flat Washer(Plain)	
	SW	Lock Washer(Spring)	
	LWI	Lock Washer (Internal Teeth)	
	LWE	Lock Washer (External Teeth)	
	TW	Trim Washer (Countersunk)	
NUT	**N**	Hex Nut	

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